

## **A Study on Developmental Language Disorder in Children with Special Reference to Dyslexia**

**Dr. Syam S.K., M.A., M.Phil., Ph.D.**

### **Abstract**

Language is a code in the respect that it is not a direct representation of the world, as a drawing or a photograph might be. It is a socially showed code in the respect that, to qualify as a language, a group of people must know the same code and use the same conventions or rules to generate and to understand the symbols of the language. Language disorders are a term that represents a heterogeneous group of developmental/ acquired disabilities. Language disorders are a term that represents a heterogeneous group of developmental or acquired disabilities principally characterized by defects in comprehension, production, and or use of language. Language learning and use are determined by the interaction of biological, cognitive, psychological and environmental as well as social factors.

**Key words: Cognitive, Disorders, Alexia, Dyslexia, Syntactic, Graphemes, Form, Content, Use**

### **1. Introduction**

#### **1.1 Language**

Language is a social code that uses a conventional system of arbitrary symbols to represent ideas about the world that are meaningful to others who know the same code. Language uses arbitrary symbols in the respect that words and their components and combinations generally deal no physical resemblance to the concepts they represent except for some onomatopoeic words like buzz, click, etc.

Language is defined by the committee on Language; American Speech Language Hearing Association (1983) is Language is a complex and dynamic system of conventional symbols that is used in various modes for thought and communication. Contemporary views of human language hold that:

- Language evolves with in specific historical, social and culture contexts;
- Language as rule governed behaviors, is described by at least five parameters- Phonologic, morphologic, syntactic, semantic and pragmatic
- Language learning and use are determined by the interaction of biological, cognitive, psychological and environmental as well as social factors.
- Effective use of language for communication requires a broad understanding of human interaction including such associated factors as nonverbal, motivational and socio-cultural roles.

The association of arbitrary symbols and abstract meaning is particularly difficult for some children with language disorder. For some, the problem seems to be confined primarily to attaching meaning to bound morphemes, such as plural and possessive endings. These are tied closely to the form of language. For others, the problem extends to content vocabulary. Children with Autism have particular difficulty in acquiring language symbols that represent conventional meanings. These children are more likely to use words and phrases idiosyncratically as 'giant words' is association with a particular situation.

A variety of systems may be used for subcategorizing language. Two distinct but compactable taxonomies are frequently by speech language pathologist and other specialists. Traditional set includes five Linguistic categories.

- Phonology**
- Morphology**
- Semantics**
- Syntax**
- Pragmatics**

Bloom and Lahey, 1978 gave a classification as follows

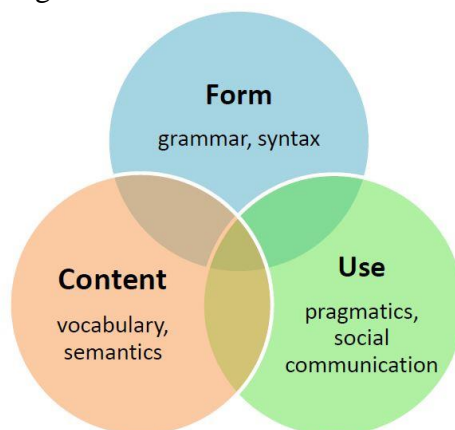


Fig 1

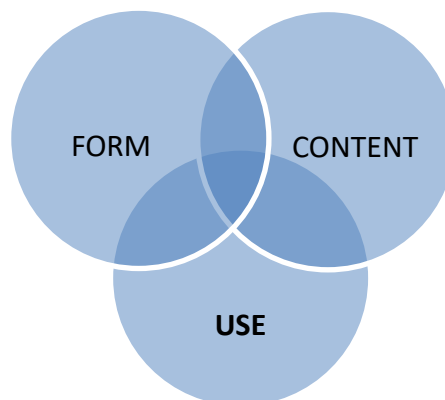


Fig 2

## Language Disorder

Language disorders are a term that represents a heterogeneous group of either developmental/acquired disabilities principally characterized by defects in comprehension, production, and or use of language. Language disorders are chronic and may persist across the lifetime of the individual the symptoms, manifestations, effects and severity of problems change once time the changes occur as a consequence of context, content and learning tasks. (Bashir, 1989)

### 2.1 Dyslexia

This term Dyslexia was identified by an ophthalmologist Rudolf Berlin in 1887. In 1881, Dyslexia was discovered by Oswald Berkhan. Dyslexia is a developmental reading disorder. This is characterized by difficulty with learning to read. This includes Linguistics peculiarities like

Phonological awareness, Phonological decoding, language skills, auditory characteristics verbal efficiency etc. Dyslexia is the most recognized reading disorder and leaning difficulty. Childhood reading disability had some features in common with alexia, or 'word blindness'. Alexia is an acquired deficit in the ability to interpret written languages. The term Alexia without agraphiya was first used by the neurologist Dejerine in 1892. To contrast with the required condition, involving specific reading disability that the observed in children developmental alexia. The term Alexia then evolved in to the term Dyslexia, partially because the reading disability is rarely expressed as complete inability to read.

## **2.2 Characteristics of Dyslexia**

The main characteristics of Dyslexia are average or above average intelligence, Reversals, transpositions and omissions in reading, spelling and speech, Difficulty leaning to read, as shown by one or more of the following:

1. Insertion of small words in reading.
2. Silent reading show when compared to intelligence
3. Oral reading resistant.
4. Poor word recall, and decoding skills.
5. Reading comprehension lost during struggle recognizes words.

Then, Difficult recalling images for individual letters and letter sequences readily, smoothly and accurately, Features sometimes observed include:

1. Spelling difficulty
2. Writing difficulty
3. Slow writing
4. Hesitancy in talking, with poor word retrieval
5. Difficulty expressing self, talking a lot but not getting to the point.
6. Particular difficulty recalling names of acquaintances or places.
7. Poor left-to-right orientation.

Then, Tendency to run in families, but can occur in isolated cases and lastly, Language difficulties appear in spite of adequate educational opportunities.

As defined dyslexia is a category which comes under the broader term 'Learning Disability'. The largest subgroup among the learning-disabled population is those children and adolescents identified as having deifies associated with learning to read and write. (Stanovich, 1986). Although most children learn to read as effortlessly as they learn to speak, regardless of the method used to teach them, a small proportion of children with no clearly identifiable, intellectual, physical or social disabilities, find it extremely difficult to learn to read or write. This perspective assumes that there are critical age-related cognitive and linguistic characteristics that interact with reading instruction and result is an inability to acquire reading skills. It is believed that the learner's cognitive linguistic abilities set the parameters for the child information's- processing capacities.

Reading requires acquisition and integration of different skills at different points in the process. The acquisition of these skills is dependent on the integrative functioning of cognitive abilities such as perception, attention, memory and their interface with linguistics variables. The difficulties of a particular language's traditional spelling system has a straight impact up on how difficult is it to learn o read that particular language. Language has its own special segments like sounds that are phoneme, morph such as word form sentence and its semantic forms. In neurological perspective different types

of writing system required different neurological aspects to read, write and speak. Because each writing system requires different part of the brain to process the physical system of the speech acts.

### 2.3. Definition

Goodman (1973) described reading as a ‘psycholinguistic guessing game’, in which reader samples only a minimal amount of the visual information, relying heavily on the redundancy of language to predict structures. To bridge the gap from print to meaning, the reader must engage a number of sub process that involve auditory, and visual perceptual abilities, cognitive abilities, language knowledge and past experiences. Reading performance can be viewed as a product of the reader’s cognitive and linguistic abilities, prior knowledge and mastery of specific reading skills. Reading performance reflect the interaction of these factors, each of which contributes collectively to the reading process and therefore to observable reading behaviors.

Although reading may start with print and the specific skills taught in the reading instruction, the level of reading efficiency demonstrated at any given point in the learning to read process is linked to the reader’s information processing capabilities within the different components of the model. Reading performance reflects the knowledge and competencies available to the learner and how these are activated and coordinated during reading process.

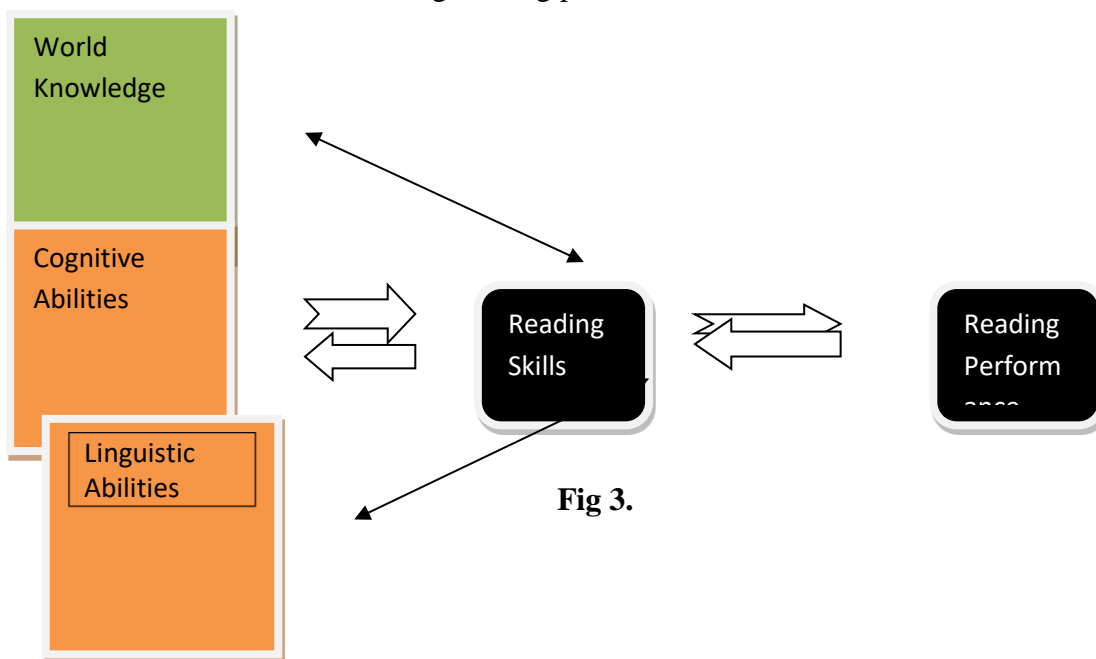


Fig 3.

In early childhood days, symptoms that correlate with diagnosis of dyslexia include delays in speech, mirror writing, difficulty in knowing directions and being easily distracted by background noise. In school aged children have had different problems including, difficulty in knowing rhythmic sound, syllables, individual sounds etc. Clearly, Young children have problems in recognizing letters, matching letters to sounds, pronouncing, school aged children have trouble with remembering spelling, fact and numbers, following a sequence and directions. And Teenagers and Adults are having problems with Reading aloud, understanding non-literal language, idioms, jokes, proverbs, etc. Dyslexia is very difficult to diagnose. There are many testing methods that determine the child’s functional reading level and compare it to reading potential which will be evaluated by an intelligence test. Some of the tests are game or puzzle type that helps the child to feel more comfortable. Also, parents should help the children in their reading.

### 3. Models of Reading

Theoretical prepositions that attempt to explain the process involved in reading follow two major approaches. They are termed as ‘bottom up approach’ and the ‘top down’.

#### 3.1 Bottom-up Approach

This approach concludes that reading is the translation of written elements in to language (Perfetti, 1984). Bottom up emphasize lower level perceptual and phonemic process and their influence on higher cognitive functioning. According to this view, knowledge of the perceptual features of letters and of their correspondence to sounds aids word recognition and decoding. It assumes that child must learn to decode point into language. That is, child must be able to divide each word into phonemic elements also learn the alphabetical letters (graphemes) that correspond to the phonemes. Only when this is acquired, then other levels of reading such as retrieving meaning out of text is derived

#### 3.2 Top-Down Approach

This approach emphasizes the cognitive task of deriving meaning from print. This approach is also termed as problem solving approach (Owens, 1996). Higher cognitive functions such as concepts, influences and levels of meaning, influence the processing of lower order information. The reader generates hypotheses is about the written material based on the world knowledge. The consent of the material in the text, and syntactic structures used. This model is also termed as ‘psycholinguistics guessing game’ (Goodman, 1976)

### 4. Intervention

Intervention to reading disorder states at the Phonological awareness. It is the awareness about the phonemes that is sound system (Chomsky, N.1965) in a particular language. First we have to create phonological awareness in a child with reading disorder.

In the early stages, we can provide necessary rhymes or alphabet song, it includes the minimal reorganization of letter names, shapes and sounds. Then next level of phonological awareness can be developed based on the rhyming words. The child will be given a word and the child has to make some rhyming words of the given word. The third level is the phoneme synthesis/ blending. For developing this level, we can provide blending task. The forth level is the segmentation task. In this stage, we can introduce the tasks for segmentation of sounds. The fifth level is the complex phonological awareness.

### 5. Conclusion

Research has found that early educational interventions are suitable before a child reaches seven years (or eight years) old. This is the most effective way of achieving long term improvements in their reading and writing. Interventions must focus on the phonological skills because it is the basic skill that could develop in the beginning. In the case of learning languages must follow the phonological skills. The language teaching as well as learning is a complex or challenging task. So it is difficult for acquiring language for a child with reading disorder. Because the children with reading impairment will show difficulty in reading as well as it will affect the child’s learning skills also. So the speech language pathologist have to identify the level at which the child is at and should emphasis on that level of reading using bottom-up or top down processing. In the case of older children, training with book is least effective than with computer. Because computers having visual images and very close to the thinking methods. Software for this purpose and word to text tutor, spelling analyzer and all function regarding that is connected with the computer and that will definitely make effective results. Making use of technology such as word processor, electronic devices etc are also used for Adults too. Most of the methods used to help children are also used for the adults with dyslexia.

Effective counseling should be done to the patients as well as the teachers who deal with children with dyslexia. The counseling should be realistic and satisfactory.

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**Dr. SYAM SK, M.A., M.Phil., Ph.D.**

Research Assistant  
Linguistic Cell, Research Wing  
Department of Development Studies  
Directorate of KIRTADS  
Government of Kerala, Calicut-17  
Kerala, India  
[syamsivan@yahoo.co.in](mailto:syamsivan@yahoo.co.in)  
[drsyamsk@gmail.com](mailto:drsyamsk@gmail.com)

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Dr. Syam S.K., M.A., M.Phil., Ph.D.

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