

## Involving Right Brain Hemisphere For Joyful Language Learning And Acquisition Of Learning Disability Children In Regular Classrooms – A Promising Tool

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### Abstract:

*Dyslexic students are found struggling to learn language. Mounting evidence has shown that due to language disorder and minimal brain dysfunction, the language skills are hampered which heavily comes on academic achievement. The failure to academic achievement further is seen on other aspects of life and career, and so it is necessary to work on the alternative and compensatory strategies.*

*Left brain is considered to be language dominant as the language related functions like Wernicke's area and Broca's area is housed in the left hemisphere of the brain. Studies have indicated structural differences and physical problems in language processing area of left brain of learning disabled or dyslexic subjects. It further clearly indicates the ineffectiveness of language processing of dyslexic students in left part of the brain.*

*Since the prime objective of education is to focus on each and every child, no student can be ignored and left behind. And as language acquisition directly co-relates to the academic achievement, it is of profound importance to work on alternative neuromodel strategies for language acquisition of dyslexic children.*

**Keywords:** Right Brain Hemisphere, Language Acquisition And Learning Disabilities.

### Introduction:

Shubham was identified as a learning disability – Dyslexic child in his schooling years. He was found struggling to learn language and his performance in other subjects too was affected. He could not adapt to the conventional methods and approaches of language learning. Though a shy and silent kid, his imagination, power to convey non-verbally, creativity and intuition was amazing and was far beyond regular classroom teaching.

The regular teaching-learning practices in general classrooms for language learning is loaded with traditional instructions, which is large and monotonous. As an educator it is important to understand the learning style, struggles and problems faced by the dyslexic students. Earlier studies in the area and research have proved that dyslexic students are already found to have dysfunction in left side of brain and require a different, novel strategy for retaining their interest in language learning.

If left brain of the dyslexics is with dysfunction, is their right brain more active? Or do they rely on right hemisphere more for optimal language learning. Researchers have proved that if one side of the brain does not function optimally; it shifts attention to the other side of the brain to make learning happen. If right brain functions can be compensated and can be used as an alternate for

language learning than it would come as a relief to the dyslexic children.

The following succeeding discourse explicitly defines the role of right brain hemisphere in language learning. But before proceeding it requires us to understand the concept of learning disability and dyslexia.

### Learning Disability and Dyslexia:

Learning Disability or Dyslexia used interchangeably is also known as 'Specific Learning Disability' and 'Language Based Learning Disability' (LBLD). Dyslexia, Specific Learning Disability and Language Based Learning Disability all are delimited to specific learning disability in language area.

Learning Disability is Specific Learning Disability with a development disorder manifesting difficulties in reading, writing. Singh S. et al. (2017). It is spectrum of difficulties related to understanding and use of spoken and written language.

All the cases with LD may differ in gravity and have some amount of variance in learning but all of them have common problem in phonological and reading skills. Having understood that Learning Disability is language disorder, it's study underlines the need to know the meaning of language acquisition and language learning comprehensively.

**Language Acquisition and Language Learning:**

Language acquisition is subconscious, unaware of rules and requires no conscious efforts for its usage and allows a person to freely and naturally use language.

Acquisition is referred to the internalization of language rules and information (Krashen, 1976) Language learning is a conscious effort understanding the need of grammar, syntax and other norms in language learning. It is defines as conscious learning of rules of grammar. (Krashen, 1981)

One of the objectives of language learning is to use it freely, convey meaning and interact socially with confidence. During learning it is necessary to let students use language in applicative form at free will to promote innovation, creativity, imagination, and moreover for fearless social interaction. All this allows in developing individual sight words vocabulary and nurtures language learning in a naturalistic way.

Voluminous study on learning disability and the neuroimaging techniques like fMRI and PET studying brain lively on individuals has made it possible to understand that the left side of the dyslexic students is with the dysfunction and there is a physical structural problem in the language learning regions of dyslexics.

So if there is problem with the left brain can the children be left ignored? Language learning does not remain itself to just learning language and it comes heavily on the academic achievement also impacting the future of the child to an extent. It is of utmost importance to address the issue and work on the alternative and compensatory strategies for language learning.

A paradigm shift in language teaching and learning needs a perspective study from neuromodel aspect by understanding the functions of other part of brain which actually plays an important role but is left ignored and unaddressed in the left brain dominant classroom.

A thorough understanding of the role of right brain in language learning would certainly prove to be of profound importance.

**Role of Right Brain Hemisphere in Language Learning:**

It is evident from the studies that left brain is dominant in language learning as the functions

related to language learning like Wernicke's Area and Broca's area are housed in the left brain. In the decade or so large amount of research on right brain's involvement in language learning has gained momentum. The left brain allows to learn language from functional aspect with rules and forms and syntax. It is actually the right brain which takes language learning to it's essence and appreciation which is used to convey and understand the speaker's tone, understand the figurative aspect, embellish language with imagination and creativity. Moreover the emotional connect which is part of right brain function allows to connect to the language and the teacher emotionally and learning happens.

The studies on lateralization, split brain and colostomy have revealed that in absence of left brain functioning inefficiently; it shifts the attention to the other side of the brain. Thus, in case of dyslexic students there is dysfunction in left brain and so they rely on right brain to compensate language learning. The earlier studies have explicitly explained the role of right brain hemisphere in language learning in the early years of child.

The major observations noted from the studies of Lindell A.K.(2006); Hanning J.(learning success blogs, 2017, 2018); Leiden University (2017); Dunoon L.(Dyslexia Blogs, 2018); Ogden(1988); Hoeft (2015); Abigail. M(n.d) have proved how actively right brain is involved in language learning and acquisition of dyslexic child and how it helps to acquire the language.

The summarized observations are as follows:

- The brain activation regions during reading, phonological processing and other language related activities showed active involvement and activation of right brain
- The cerebral lateralized functions reflects the linguistic ability of right brain hemisphere
- Prosodic and paralinguistic aspects of speech production, reception and interpretation, to prelexical, lexical and post lexical components of visual word recognition was demonstrated in right brain
- Brain scans showed that language mechanisms in the non dominant hemisphere do not become relevant unless there is dysfunction in main language cortex.
- The supra segmental prosodic information through acoustic language input is predominantly

processed in temporo-frontal network in right hemisphere

- The right hemispheres mediation in higher order language function, understanding communicative intent and social interactions cannot be ignored.

Thus, the mysteries of right brain functions in language learning can be unfolded for optimal learning of dyslexic children.

### Conclusion:

It's time for the educators to change their pedagogical style and understand the learning preferences and style of dyslexic learners. Teaching-Learning cannot happen one way. The child excels in the area he/she likes and so conventional methods do not suit the purpose of learning. Dyslexic children are also found to be more impulsive, lack concentration and exhibit behavioral issues. To tackle these issues their interest in learning needs to be retained.

To do so, the teacher's in the classroom need to think out of box and implement novel teaching strategies connecting to real life situations and their area of interest. Most of these children benefit from music, arts, performing arts and other areas of their liking. If teaching can be connected to the world of their liking then the problems of learning can be addressed wonderfully and effectively.

By priming to enhance the right brain functions involved in language learning, the ignored hemisphere can do wonders and help in using it as an alternative and compensatory technique for language acquisition which comes as a promising tool to the relief of Dyslexic students!!

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