

Preparing Teachers for Multisensory Teaching Strategy to Improve the Learning Outcomes of Students with Reading Disabilities

B. Viji

Full Time Doctorate Scholar

and

B. William Dharma Raja

Professor & Head

Department of Education

Manonmaniam Sundaranar University

Tirunelveli

vijip06@gmail.com

Today the classroom climate does not make it easy for children with dyslexia, the reading disability. Teachers can see more and more students who are having difficulties in reading problems. The scores in reading are decreased and as a result, the whole academic performance declines. In a normal environment, these students function as socially intelligent individuals with no disabilities. But when it comes to reading, they feel they are no longer well intelligent persons and they think they are excluded from learning to read, write and spell the words. This happens more in a language class especially in learning to read a foreign language. With better understanding of the nature of reading only, effective ways of teaching for these students can be devised. So it is the prime duty of a teacher to understand the most suitable ways in which students with reading disability can acquire reading. This helps millions and millions of students with dyslexia whose lives are shattered by it, to develop their academic results. If each teacher uses better tools to help these students, then the normal students with poor reading habits also will succeed in reading. This paper give details how the students learn to read and how much it is important to offer teachers potentially new interventions for students with reading disability. It also focuses how multisensory teaching plays an important role in reading when incorporated into the inclusive curriculum improving not only the academic outcomes of the students with dyslexia but the non-disabled peers also.

From the existence of human beings, spoken language is observed in all societies on earth. Exposure of a child to the natural speaking environment results in the development of spoken language. Spoken language is natural and it does not require to be specially taught. But in contrast to spoken language, written language should be acquired and must be taught. The differences between written language and spoken language provide an account of why reading is difficult and speaking is easy. This relationship between spoken language and written language is best expressed

by Bloomfield, (1933) by the statement, “Writing is not language, but merely a way of recording [spoken] language by visible marks.” To understand why reading is more difficult than speaking, the challenge in reading the language system is considered first. The National Reading Panel (2000) has published its findings indicating that effective reading programme should include phonological and phonemic awareness, phonics, fluency, vocabulary and comprehension. The research recommends using a reading program for all students that includes a spelling component and multisensory reinforcement. It appears that what works for students with dyslexia also works best for all readers. Students with dyslexia usually need different pacing with more time and practice. They need additional expertise from a reading therapist or educational specialist. The same general principles are also effective for students whose first language is not English but who need to learn to read, spell and write in English.

How students learn to read?

Reading is a ability and it is typically learnt through explicit training and phonological processing skills which in turn, contribute to its successful acquisition (Stanovich, 1988). Multiple skills are required in learning to read. These skills include the development of awareness that spoken language can be segmented into smaller elements (i.e., phonemes), identifying letters, learning the rules of how print maps on to sound, recognizing whole words not only accurately but also rapidly (automatically), acquiring a vocabulary, and extracting meaning from the printed words. Teaching children the rules for mapping the orthography against the elemental sounds of spoken language is focused in the beginning of reading instruction. Children initially learn to read words by mapping letters to sounds, and eventually, after reading and rereading a word correctly, the child can read the word not only accurately but also fluently. Fluent reading is the ability to read text accurately and rapidly with proper expression (National Reading Panel, 2000).

Learning to link

Students, moreover, learn to link speech sounds to letters or letter patterns by saying sounds for letters they see, or writing letters for sounds they hear. As students learn a new letter or pattern, they repeat five to seven words that are dictated by the teacher and contain the sound of the new letter or pattern. The students discover the sound that is the same in all the words. Next, they look at the written words and discover the new letter or pattern. Finally, they carefully trace, copy, and write the letter while saying the corresponding sound. The sound may be dictated by the teacher, and the letter name given by the student. Students then read and spell words, phrases, and sentences using these patterns to build their reading fluency. Teachers and their students depend

on all three pathways for learning rather than concentrating on a “whole word memory method,” a “tracing method,” or a “phonetic method” alone.

Reading Disability

When the above experience with reading instruction builds up, *accurate* reading is achieved. When there is a distraction in the reading process, the children were unable to read *fluently* (Shaywitz, Morris & Shaywitz, 2008). In the process of learning to read, recoding the letters into their sounds is a forbidding step for some children. The importance of fluent reading, particularly its disruption in readers with dyslexia, is described in the definition of dyslexia, given by IDA as, “difficulties with accurate and or *fluent* word recognition”. This failure of the development of fluent reading is a hallmark of dyslexia that continues into adolescence and then adulthood, even though accuracy improves. This lack of fluent reading, though reading is effortful and slow, is often considered as the *sine qua non* of dyslexia (Lefly & Pennington, 1991; Shaywitz, 2003).

What is meant by multisensory teaching?

Multisensory teaching is an important aspect of instruction for students with reading disability, since it is focused on the structure of language. This is also an explicit, direct, cumulative, and intensive teaching strategy. Multisensory learning involves the use of visual, auditory and kinesthetic-tactile pathways simultaneously to enhance memory and learning of written language. There are links that are consistently made between the visual, auditory, and kinesthetic-tactile pathways in learning to read and spell (Birsh, 2005).

According to Margaret Byrd Rawson, a former President of the International Dyslexia Association (IDA), “Dyslexic students need a different approach to learning language from that employed in most classrooms. They need to be taught, slowly and thoroughly, the basic elements of their language - the sounds and the letters which represent them - and how to put these together and take them apart. They have to have lots of practice in having their writing hands, eyes, ears, and voices working together for conscious organization and retention of their learning. Teachers who use this approach help students perceive the speech sounds in words (phonemes) by looking in the mirror when they speak or exaggerating the movements of their mouths.”

Principles of a multisensory, structured language approach

The summary of the principles, according to Carreker and Birsh (2005), to enhance a successful foreign language includes the following, *Simultaneous, Multisensory*: Teaching uses all learning pathways in the brain (i.e., visual, auditory, kinesthetic tactile) simultaneously or sequentially in order to enhance memory and learning.

Systematic and Cumulative: Multisensory language instruction requires that the organization of material follows the logical order of the language. The sequence must begin with the easiest and most basic concepts and progress methodically to more difficult material. Each concept must also be based on those already learned. Concepts taught must be systematically reviewed to strengthen memory.

Direct Instruction: The inferential learning of any concept cannot be taken for granted. Multisensory language instruction requires direct teaching of all concepts with continuous student-teacher interaction.

Diagnostic Teaching: The teacher must be skillful at flexible or individualized teaching. The teaching plan is based on careful and continuous assessment of the individual's needs. The content presented must be mastered step by step for the student to progress.

Synthetic and Analytic Instruction: Multisensory, structured language programmes include both synthetic and analytic instruction. Synthetic instruction presents the parts of the language and then teaches how the parts work together to form a whole. Analytic instruction presents the whole and teaches how this can be broken down into its component parts.

Comprehensive and Inclusive: All levels of language are addressed, often in parallel, including phonemes, graphemes, morphemes, semantics, syntax, discourse, and pragmatics.

Rationale behind multisensory teaching

Students with dyslexia often exhibit weaknesses in language skills involving speech sound and print processing and in building brain pathways that connect speech with print. In multisensory, structured language teaching, the brain pathways used for reading and spelling should connect many brain areas and must transmit information with sufficient speed and accuracy.

Most of the students with dyslexia are unaware of the role sounds play in words, and have weak phonemic awareness. These students may also have difficulty in rhyming words, blending sounds to make words, or segmenting words into sounds. As they have trouble in establishing associations between sounds and symbols, they also have trouble in learning to recognize words automatically or fast enough to allow comprehension. If they are not accurate with sounds or symbols, they will have trouble in forming memories for common, little words (Schupack & Wilson 1997). They need specialized instruction to master the alphabetic code and to form those memories. When taught by a multisensory approach, students have the advantage of learning alphabetic patterns and words with engagement of all learning modalities. Dr. Samuel Terry Orton (1925), one of the first to recognize the syndrome of dyslexia in students, suggested

that teaching the “fundamentals of phonic association with letter forms, both visually presented and reproduced in writing until the correct associations were built up,” would benefit students of all ages.

Research supported by the National Institute of Child Health and Human Development (NICHD), has demonstrated the importance of explicit, structured language teaching for all students, especially those with dyslexia. It is solid evidence that multisensory teaching is effective for students with dyslexia. The multisensory principle is so valued by experienced clinicians. Most of the education programmes include multisensory practice for symbol learning. This instructional approach uses direct, clear teaching of letters, letter sound relationships, syllable patterns, and meaningful word parts, and provide a great deal of successful practice of skills that have been taught. Fluency-building exercises, vocabulary instruction, language comprehension and writing are also included in comprehensive programmes of instruction and intervention. Word recognition and spelling skills are applied in meaningful reading and writing of sentences and text passages, and students receive immediate feedback if they make mistakes. Guessing at words and skipping words are discouraged and replaced by knowledge of how to analyze and read unknown words.

Implications

Since students with reading make up approximately five to fifteen percent of any population, the need to provide practical information for teachers with regard to the characteristics associated with *specific learning disability*, and information regarding practical teaching methods and strategies for addressing the needs of these specific learners is to be recognized. New research shows that clear teaching of language-based skills along with the added benefits of multisensory techniques is effective for students with reading disabilities (Birsh, 2005). The specific multisensory approaches are very useful to students, who are struggling with language skills to improve their academic outcomes in elementary through high school. Teachers have to be prepared to deliver high-quality multisensory instruction that improves outcomes for students with reading disabilities like their peers. When teaching is combined with multisensory practice, learning is cemented into long-term memory. Since the students with dyslexia have poor attention and memory, this practice is very useful to improve their academic outcomes. Not only these students but also the normal students with poor reading habits also reap the benefits of this instruction when practiced in a mainstream educational setup.

So the teachers should be prepared to: (i) help such students develop skills in key areas such as phonological awareness, letter knowledge, handwriting, phonics, fluency, spelling,

comprehension, composition, and mathematics; (ii) plan thoughtful, clear multisensory language lessons that combine two or more senses; (iii) create a positive classroom environment conducive to effective teaching and learning for struggling students; (iv) conduct biliteracy instruction for foreign language speaking students; (v) meet the needs of students who use assistive technology; and (vi) know the rights of individuals with dyslexia; and (vii) conduct successful assessment of reading difficulties and monitor progress. Teachers who are sensitive to the needs of children with reading disability can have significant impact on these children and give them a positive life-long effect on their ability to meet their potential.

Conclusion

Every teacher needs to have knowledge and expertise in delivering an alphabetic-phonetic approach to provide an effective instructional program. Without this, students lack the firm foundation needed for reading success. Teachers often need to develop new instructional approaches. They need the time and opportunity to understand the structure and rules of the English language, phonemic awareness and multisensory instruction as well as the specific strategies and techniques that make learning effective for students learning to read, write and comprehend English in print. Though it is a part of teacher preparation, it is necessary for districts, schools or individual teachers to seek out the training, professional development, and the tools, curricula that will fill up the gaps for learners who need to know the structure of the language in order to manage written language skills. Teachers must relinquish standard pathways and it requires of a teacher to become “a listener” and “follower,” to discover and focus on the desire of the child with a disability. When teachers and education can tune into this “fluidity,” students with a disability can become more than the category that limits them.

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