



Psycholinguistic Aided Phonics Teaching To Dysphonetic Dyslexics by P.Paramadhyan et al.

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Abstract

Numbers of school-age children, including children from all the socio-economic classes, have significant difficulties in learning to read because of their reading disability. Learning to read a language poses real challenges, even to children who will eventually become good readers. Every writing system of a language has its own complexities; English presents a relatively large challenge, even among alphabetic languages. Learning the principles of a syllabic system in Tamil is quite straightforward and even to young children also easy to percept the pronunciation. In English language there are totally 26 alphabetic letters which are used as graphemes, but they represent approximately 44 speech sounds (phonemes). So, while learning English as a second language, the Tamil dyslexic children faced many problems to read. The development of reading depends on phonological awareness across all languages. Phonics is essential for reading an alphabetic language like English. The phonic method is very popular with the teachers and parents for a long period in the western countries and follows this arrangement for dyslexic children. Phonics is the best method for teaching native and non-native English students who have reading disabilities. There are many phonic rules for both vowels and consonants. The aim of the present paper is, to increase the capability of Tamil dyslexics, to learn English through phonic rules. Different types of phonics approaches and various steps in phonics teaching are also discussed in this paper.

Key Words - Dyslexia, Dysphonetics, Phonics, Phonological awareness.

**Psycholinguistic Aided Phonics Teaching To Dysphonetic Dyslexics by P.Paramadhyalan et al.****1. Introduction**

Dyslexia is ‘a combination of abilities and difficulties that affect the learning process in reading, spelling and writing. Accompanying weakness may be identified in areas of speed of processing, short-term memory, sequencing, auditory and/or visual perception, spoken language and motor skills. It is particularly related to mastering and using written language, which may include alphabetic, numeric and musical notation’ (Peer, 2001).

Reading disabled children were split into two groups based on a median split of scores on a visual non-word decoding test. The better decoders were called Phonetics and the poorer decoders were referred to as dysphonetics. The readers who have problems in processing phonics they had difficulty in integrating written words with their sounds. Thus, he or she will display poor phonic word analysis and decoding skills. Dysphonetic dyslexia has also been called as auditory dyslexia. These children have difficulty in connecting sounds to symbols.

Dyslexic children typically manifest problems in printed word recognition and spelling, and difficulties in phonological processing are quite common (Lyon, 1995; Rack, Snowling, & Olson, 1992; Stanovich, 1988; Wagner & Torgesen, 1987). The phonological processing problems include pronouncing nonsense words, poor phonemic awareness, problems in representing phonological information in short-term memory and difficulty in rapidly retrieving the names of familiar objects, digits and letters (Stanovich, 1988; Wagner & Torgesen, 1987; Wolf & Bowers, 1999).

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The underlying cause of phonological deficits in dyslexic children is not yet clear. One possible source is developmentally deviant perception of speech at the phoneme level. Number of studies has shown that dyslexics' categorizations of speech sounds are less sharp than normal readers (Chiappe, Chiappe, & Siegel, 2001; Godfrey, Syrdal-Lasky, Millay, & Knox, 1981; Maassen, Groenen, Crul, Assman-Hulsmans, & Gabreels, 2001; Reed, 1989; Serniclaes, Sprenger-Charolles, Carré, & Demonet, 2001; Werker & Tees, 1987).

Phonics is the ability to hear similarities and differences among phonemes. Strong phonemic awareness results in the ability to rhyme, to list words that begin and end with the same sound, to break words into individual phonemes, and to blend phonemes together to make a familiar word. Phonemic awareness is essential for learning to read, and if these skills are lacking, then an intervention is required to build such skills.

Phonics is the recognition, analysis, and synthesis of phonemic elements in written words. Learning phonics is difficult for dyslexic children because they have the lack of phonological awareness. Phonological awareness refers to the child's ability to focus on and manipulate phonemes in spoken words.

In the early stages of learning to read, children's attention is devoted in establishing the phonological pathway (*'phonics'*). At the basic level, learning to read requires the child to establish a set of mappings between the letters (graphemes) of printed words and the speech sounds (phonemes) of spoken words. These mappings

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between orthography and phonology allow novel words to be decoded and provide a foundation for the acquisition of later and more automatic reading skills.

Dyslexic children generally fail to attain adequate reading levels because of lack of phonics and phonemic awareness. Brain recognizes the language in a hierarchical order. The upper level deals with semantics, syntax, and discourse. The lower level deals with phonemes. The reading disabled children already have the problem in phonics sounds i.e., relationship between printed letters (graphemes) and the sounds (phonemes) of language. While learning English as a second language by Tamil dyslexic children face more problems because of the English alphabet which contains twenty-six letters which represent more than forty (forty four) speech sounds. The aim of the present paper is, to increase the capability of Tamil dyslexics to learn English through phonic rules. Different types of phonics approach and various steps in phonics teaching are also discussed in this paper.

2. Steps in teaching phonics

Dysphonetic dyslexics are not able to link the auditory equivalent of a word to the visual component. So dyslexic-children need agreement on auditory and visual discrimination which are the prerequisites for learning sound-symbol relationships.

2. 1. Active letter knowledge

Teaching sounds of the alphabets instead of the name of the alphabets for dyslexic children for easy perception of sounds of the alphabet.

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Teacher tells a letter and then makes dyslexic children to answer with the keyword and sound. By regular reinforcing these activities, the dyslexic children will be able to know the sound-symbol relationship of the alphabet of a language.

Examples

A: Anand holds an apple. /a/

B: Baskar bats the blue ball. /b/

C: Chinnakannu captain the colony and saw the comic cinema. /k/ & /s/

D: Drunken driver drove the Dayalan's car. /d/

E: Editor edits an English movie. /e/

F: Frog falls on the fire (fate). /f/

G: Grandmother gave a gold chain to Gayathri. /g/

H: Hari plays hockey in his holiday. /h/

I: Ice cream gives illness to Infant. /i/

J: Jolly jellyfish enjoys jam. /j/

K: Kindred King has the key. /k/

L: Lion licks lemon lollipops. /l/

M: Morris Mouse is a mighty magician. /m/

N: Nine eggs are in the little nest. /n/

O: Old man participates in Olympic Games and owns the prize. /o/

P: Parrot and Peacock ate the pea. /p/

Q: Quail walks Quiet quickly. /kw/

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R: Remedial teaching relieves the reading disabled children. /r/

S: Silly Spider spins a silky spider web. /s/

T: There are ten therapists in this centre. /t/

U: Uncle used ultimately ultrasound unit. /u/

V: Various vegetables are used in the vegetable rice. /v/

W: The expansion of WWW is World Wide Web. /w/

X: Max Fox sits in the box. /ks/

Y: Yo Yak yanks his yo-yo back. /y/

Z: Zelda Zebra zips the big zipper. /z/

2. 2. Passive letter knowledge

The teacher/examiner can name a sound and can ask the child to make new words on the sound/letter by giving simple drills.

The teacher may help the dyslexic children to develop the skills in auditory discrimination. Many children have not developed the degree of auditory discrimination necessary for learning to read (Bond & Wagner, 1960). For those children, the following methods will be very helpful to discriminate the auditory sounds.

Children listen while the teacher pronounces a series of words; all begin with the same sound.

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For example: *belt, ball, bird*, etc.

Children then continue the teacher's instruction to make new words which begin with the same sound. Examples: *baby, bat, bank*, etc.

2. 3. Phoneme identification task

i. The cards are presented to the child which containing five words. The examiner/teacher names all words and asks the child to name the last sound of one depicted word. Then, the examiner asks the child which other word also ends with that sound. The task consists of ten items, which are given below:

Boom:	roos	<i>raam</i>	boot	vis
Slak :	<i>bok</i>	slang	has	bel
Maan:	<i>trein</i>	ster	vaas	kous
Kam:	kar	huis	<i>tram</i>	baard
Kin:	wang	kip	<i>haan</i>	tak
Sok:	deur	schoen	kop	<i>boek</i>
Hoed:	hoef	beer	<i>paard</i>	jas
Haas:	kok	haak	schaap	<i>das</i>
Boek:	zaag	pen	<i>dak</i>	boer
Kat:	<i>tart</i>	kam	raam	vis

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ii) By the same way, teacher/examiner calls out the dyslexic children to mark each word that begins with the same letter that are underlined in the first word which are given below:

<u>m</u> uch:	moon	after	manifest	lake
<u>b</u> all:	bake	take	best	took
<u>ch</u> in:	stage	cheek	chess	church
<u>g</u> ate:	joy	girl	game	gun

iii. A number of pictures are collected from websites, workbooks, magazine, etc.

For examples: *baby, ball, boat* is put into one group and a picture of *house, hands*, etc., into another group. Pasting each picture on a separate piece of cardboard to make handling easier. Now the teachers instruct the children to arrange these pictures based on the initial sound of the objects.

iv. Dyslexic children practice the hearing sounds of rhyming words which are pronounced by the teacher. If the words rhyme (*mill-hill*), the children clap their hands once. If the words do not rhyme (*make-milk*), children say “no”.

Examples: *drum-hum; boom-bang; cap-mad; bake-cake; small-tall; fan-man; sit-hit; cold-gold.*

2. 4. Visual discrimination: The visual aspect of reading is not that a child requires a special kind or degree of acuity to discriminate between two letters; probably any child can distinguish between two faces.

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i) Teaching the association of the sound of letters and combination of letters with printed symbol equivalent is dependent on the child's ability to recognize and discriminate visually between printed letters, such as "bad"---"dad"; "moon"--- "noon"; "bat" --- "bit" --- "but" --- "bet".

2.5. C-Rule: The C-Rule is complex to dyslexic children while compare to the normal children because this rule is somewhat difficult to learn. The rules are given below:

i. The letter 'c' is pronounced as 'k', followed by *a, o, u* in words such as *cat, cold, cute*.

ii. It is pronounced as 'c' (se:), followed by *e, i, y* in words such as *cease, cinema, cylinder*. There is some restriction in this rule. Before *e, i, y* it is pronounced as 'k' also in words such as *keep, kiss, sky*.

iii. It is also pronounced as 'k' at the end of a word after a diphthong. Examples: *seek, make, strike*.

iv. It is pronounced as 'k' also at the end of a word after a consonant: *ilk, honk, bark*.

2. 6. G-Rule: The G-Rule also complex to learn like the C-Rule, which are given below:

i. The letter 'g' is pronounced as 'g', followed by *a, o, u* in words such as *gate, goes, gun, etc*.

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ii. The letter 'g' is pronounced as 'j', followed by *e, i, y* in words such as *angel, bridge, ridge, ginger, hydrogen, gymnastics, etc.*

2.7. Y & W-Rule: The *y* & *w* - rule is more complex to learn while compare to the above two rules. These letters in English language has varied sounds according to the place of occurrence. If it comes at the beginning or/ middle (medial) or/ end of the word it has different sounds. The letters *w* and *y* take on the characteristics of the vowel when they appear in the final position in a word or syllable. The letter *y* has the characteristics of a vowel in the medial (middle) position in a word or syllable. The letters *w* and *y* have the characteristics of consonants when they appear in the initial position in a word or syllable.

Examples

Crystal – In the middle the sound 'y' is different from the above two sounds.

It has a sound *i*.

Fly – The word ending with the letter 'y' it has the sound *ai*.

Baby - The word ending with the same 'y' but it is differs from the above word. The sound of baby is *e*.

War – In the initial 'w' has the consonant sound.

Yarn - In the initial 'y' has the consonant sound.

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2. 8. Bossy R (R-Controlled): When a vowel is followed by an "r" in the same syllable, that vowel is "r-controlled". It is neither long nor short. R-controlled er, ir, and ur often sound the same (like "er").

Examples: *term, sir, fir, fur, far, for, su/gar, or/der.*

2. 9. Consonant digraphs: When two consonants are joined together and formed into one new sound, they are called as consonant digraph. They count as one sound and one letter and are never separated. For example, *sh* is a consonant digraph in the word *shore*, since it represents one sound and not a blend of the sounds of *s* and *h*. Other consonant digraphs are *ch, sh, th, ph* and *wh*.

2. 10. Silent "e" or final "e": When the word ends with a grapheme *e*, in front of the vowel in a word is long. Examples: *make, gene, kite, rope, and use.*

2. 11. Double consonants: When two like consonants are next to each other, only one is sounded. The double consonants are *ss, ll, rr, tt, mm, nn, ff, pp, cc, dd, gg, bb, zz.*

Examples: *hall, glass, difficult, apply, surround, middle, etc.*

2. 12. Vowel digraphs: Two adjacent vowel letters that represent a single sound constitute a vowel digraph. When a syllable has two vowels together, the first vowel is usually long and the second is silent.

Examples: "pain, eat, boat, res/cue, say, grow".

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NOTE: Diphthongs donot follow this rule; in a diphthong, the vowels blend together to create a single new sound. The diphthongs are: "oi, oy, ou, ow, au, aw, oo" and many others.

Examples: *boil, boy, out, now, foot.*

2.13. Other rules

2. 13. 1. *ch* usually has the sound as heard in *church*, although it sometimes sounds like *sh* or *k*. Examples of usual sound: *child, chill, china*. Examples of *sh* sound: *chef, chevron*. Examples of *k* sound: *chemistry, chord*.

2. 13. 2 When the letter *g,h,t* are presented together in a word, the *gh* is not sounded.

Examples: *taught, light*.

2. 13. 3. When 'wr' comes as the first two letters in a word, the *w* is not sounded.

Examples: *write, wrong*.

2. 13. 4. When *kn* are the first two letters in a word, the *k* is not sounded.

Examples: *knight, knit, knives*.

When 'kn' comes as the last two letters in word, the sound of *k* is only pronounced.

Examples: *check, brick*.

2. 13. 5. When 'ck' comes as are the last two letters in a word, the sound of *k* is given.

Examples: *check, brick*.

2. 13. 6. The word has only one vowel which is at the end of the word; the vowel usually represents long sound.



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Examples: *me, go.*

2. 13. 7. The letter combination *qu* often stands for the sound of *kw*, although it sometimes stands for the sounds of *k*. Examples of *kw* sound: *quick, queen*. Example of *k* sound: *quay*.

3. Types of phonics approach

Table-1 shows that the different types of phonics approaches and definitions with example.

Approach	Definition	Example
Synthetic phonics	Children learn how to: <ul style="list-style-type: none"> •convert letters or letter combinations into sounds •blend the sounds together to form words 	Teacher points to letter and says the letter name and sound, for example, “ m ” says / m /, a says / a /, and t says / t /.” Students blend the sounds together to say “mat.”
Analytic phonics	Children: <ul style="list-style-type: none"> •learn to analyze letter-sound relationships of previously learned words •do not pronounce sounds in isolation 	Teacher points to the word “ mat ” and says, “This word starts with the same letter as man and ends like the word cat . Put the parts together and tell me the word.” Children: “ mat .”
Analogy based	Children learn to:	Teacher: “We know that at says / at / and



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	<ul style="list-style-type: none"> •use parts of word families they know to •identify words they don't know that have similar parts 	<p>that m says /m/. Let's put them together to make a new word.</p> <p>Children: "mat."</p>
Phonics through spelling	<p>Children learn to:</p> <ul style="list-style-type: none"> •segment words into phonemes •make words by writing letters for phonemes 	<p>Teacher: "Write down the sounds in the word mat."</p> <p>Children segment the word into sounds and write the sounds as a word.</p> <p>Teacher: "Read the word."</p> <p>Children: "mat."</p>
Embedded phonics	<p>Children are:</p> <ul style="list-style-type: none"> •taught letter-sound relationships during the reading of connected text 	<p>Not systematic or explicit since children encounter different letter-sound relationships as they read.</p>
Onset-rime phonics	<p>Children learn to:</p> <ul style="list-style-type: none"> •identify the sound of the letter or letters before the first vowel (the onset) in a one-syllable word and the sound of the remaining part of the word (the rime) 	<p>Teacher: "Find the vowel in the word (mat) on your paper and point to the letter that comes before it."</p> <p>Children find the "a" then point to the m.</p> <p>Teacher: "What sound does it make?"</p> <p>Children: /m/.</p> <p>Teacher: "What is the sound of the rest of</p>

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		the word?" Children: /at/. Teacher: "What word is it?" Children: " mat. "
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(Adopted from Armbruster, Lehr & Osborn, 2001)

4. Conclusion

Most of the children are masters for learning to read but in the case of dyslexic children they are unable to master in reading because they have problem to blend the sounds of the word. The beginning readers are benefit from learning phonics information. The purpose of teaching children about the phonics information, and how to apply it to decode words, is to enable them to look at individual letters in a written word, and then to "sound out" each of them. Thus, *big* becomes /b/--/i/--/g/. By "blending" together these three speech sounds in a serial order, /b/--/i/--/g/, a child produces an approximate pronunciation of *big*. To master a phonics rule, a student must become consciously aware of the speech sounds in spoken words, and then understand that these sounds are predictably represented in writing by certain letters. Teaching students to spell speech sounds may be the most effective way possible to develop their mastery of phonics rules.

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