

RESEARCH & READING

The following information was prepared by the *Child Development Institute*

Poor Reading Affects Many Children

A recent survey showed that 44% of the 4th Grade children nationwide are not able to read at or above the basic or partial mastery, level on the 1994 *National Assessment of Education Progress* test. The extent of the problem ranged from 27% in Maine to 62% in Louisiana. In California 59% of the students are reading BELOW the minimum established proficiency level for reading.

Children with poor reading skills often:

- Receive poor grades
- Are easily frustrated
- Have difficulty completing assignments
- Have low self-esteem
- Have behavior problems
- Have more physical illnesses due to stress
- Don't like school
- Grow up to be shy in front of groups
- Fail to develop to their full potential

Reading Is The Key To Learning

The ability to read is essential to being able to learn any subject taught in school. In our high tech society, proficiency in reading is a must to compete favorably in today's job market. The information age is upon us. You can expect greater demands to be made upon reading ability.

As parents, it's up to us to make sure that our children can read, write, spell and pronounce words correctly.

Learning To Read Should Be As Easy As Learning To Talk

Just watch how a preschooler will pretend to read a story you have just read for them. They are learning by imitation. Actually that is how children learn many things. Take speech for an example. Young children learn to talk by imitating the sounds made by their parents. They then learn how the sounds go together to make words.

When you helped your child learn to talk you both had fun. You probably made up games to stimulate them to talk. They interacted with you and that made the learning process enjoyable. You both smiled and laughed when they learned to say new words or phrases.

Reading and writing are simply talking on paper. Why shouldn't learning to read be just as much fun as learning to talk? Here are some tips for encouraging your child to enjoy reading:

- Read to your child. No matter what age your child happens to be, he will benefit from listening to you read aloud.
- Discuss the books you read to your child.
- Be a good reading "model" by letting your child see you read.
- Introduce your child to books that discuss his hobby, interests, or new experiences.
- Buy books as presents for your child and he'll learn to value books.
- Make sure your child has a library card.

Ten Years Of Brain Imaging Research Shows The Brain Reads Sound By Sound

A dyslexia research team at Yale University's Center for Learning and Attention lead by Dr. Sally Shaywitz has found a window on the brain through a new imaging technique called functional MRI. These medical scientists have identified parts of the brain used in reading. By observing the flow of oxygen-rich blood to working brain cells, they have found that people who know how to sound out words can rapidly process what they see. This information has shed new light on dyslexia and how to help dyslexics.

When readers are asked to imagine "cat" without the "kah" sound, they readily summon "at." The MRI photographs show their brains lighting up like pinball machines. When the brain gets it, the light bulbs really do go on. However, the brains of people who can't sound out words often look different on MRI pictures. There is less blood flow to the language centers of the brain and, in some cases, not much activity evident at all. Scientist's are not sure why this is or what it means. But simply put, without the ability to sound out words, the brain is stumped.

Basically this research seems to be saying that the brain learns to read the same way it learns to talk, one sound at a time. When babies first learn to talk they may slowly say one sound at a time. Once they get the hang of it, they speed up. Our brain becomes adept at processing and our experience is that of hearing words but actually our brain is processing sounds (phonemes) and putting them together so we hear words. When we read the same process is in operation. Our brain is processing one sound at a time but we perceive it as a whole word. ***In good readers, the process is so fast it appears that they are reading whole words but in fact they are converting the letters on the written page into to sounds. The brain then recognizes groups of sounds as words.***

Reading is not automatic but must be learned. The reader must develop a conscious awareness that the letters on the page represent the sounds of the spoken word. To read the word "cat," the reader must parse, or segment, the word into its underlying phonological elements. ***Once the word is in its phonological form, it can be identified and understood.*** In dyslexia, an inefficient phonological module produces representations that are less clear and, hence, more difficult to bring to awareness. (*Scientific American*, November 1996, page 100)

According to Dr. Shaywitz, "Over the past two decades, a coherent model of dyslexia has emerged that is based on phonological processing. The phonological model is consistent both with the clinical symptoms of dyslexia and with what neuroscientists know about brain organization and function. Investigators from many laboratories, including my colleagues and I at the Yale Center, have had the opportunity through 10 years of cognitive, and more recently, neurobiological studies."

Dyslexics (or poor readers) are very frustrated by the fact that they can understand what they hear but not what they read. Dyslexics have average or above average intelligence. ***Once they can properly decode words they can understand the concept. Decoding skills are the key to learning from written material.***

Years of educational research has shown that the use of intensive phonics is the only way to teach dyslexics and learning disabled individuals how to read. The new brain research shows why intensive phonics is also the best way for everyone to learn to read.

Why Johnny Can't Read

The main reasons for reading problems are:

- Ineffective reading instruction
- Auditory perception difficulties
- Visual perception difficulties
- Language processing difficulties

Over 180 research studies to date have proven that phonics is the BEST WAY to teach reading to all students. They also have shown that phonics is the ONLY WAY to teach reading to students with learning disabilities.

Unfortunately, 80% of our nation's schools do not use an intensified phonics approach for reading instruction. They either use the whole word (see & say) approach or a cursory use of phonics along with the whole word method.

While most people can learn to read using the whole word approach, it is not the best way to learn. It teaches through memorization of word pictures and guessing. Unlike Chinese or Japanese which are picture languages, the English language is a phonetic language. With the exception of the United States which dropped phonics in the 1930's, all other countries that have a phonetic language, teach reading through phonics.

There are only 44 sounds while there are about 1 million words in English. These facts readily explain why having to memorize 44 sounds as opposed to memorizing hundreds of thousands of words is the most efficient way to learn to read.

A few children have auditory discrimination problems. This may have been the result of having chronic ear infections when they were young. Others may be born with this learning disability. Correction involves educational exercises to train the brain in discrimination and to over teach the formation of the sounds used in speaking and reading.

Another small group of children have visual perception problems. They may actually reverse letters or words. They have difficulty matching the word image on the page with a previously stored image in their brain. Exercises that train the brain to "see" more accurately may help ***but instruction with phonics is the best approach to overcome this problem.***

Language development problems can contribute to poor reading and listening comprehension along with difficulty in verbal and written expression. Learning appropriate word attack skills through phonics along with special help in receptive and/or expressive language skills improves this type of learning disability.

The Academic Associates Reading Program complies with current research as reported by the *Child Development Institute* and the *Southwest Educational Development Laboratory*.

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