

The Concept – 44 Sounds

But First, A Question

When I ask adults, “What’s the hardest thing you ever had to learn?” Hardly anyone ever gets the answer right. If I asked you, the person reading this right now, what would your answer be? The different possibilities are as endless as they are often wrong. You started learning the hardest thing you ever had to learn before you even knew you had a name. It is the language that you can now speak.

A Little Learning Machine

When a baby is born, it knows how to eat, sleep, cry, smile, pee, poop, and learn. Every newborn baby is a little learning machine. The baby has entered a strange new world it knows absolutely nothing about, but its incredible ability to learn will soon fix all of that.

A baby speaks no language. It does not even know what language is. Starting from knowing nothing, the baby will figure out that the sounds it hears that we call words have meanings different from the other sounds it hears. The baby also learns that it can understand the meaning of these sounds and make these same sounds itself. To every parent’s delight, the baby will soon have learned enough to speak its first words.

An infant sitting in a highchair, inadvertently placed too close to a heater in the room, turns her head towards her mother and says, “Hot!” The mother immediately moves the child’s highchair. Before the child had learned that word, her only way of communicating her discomfort was to cry and leave it to her mother to guess the reason for her tears.

Babies learn what language is and learn to speak it. This is true for babies all over the world. Every healthy child who can hear will learn to talk. A child who cannot hear will learn sign language instead if given the opportunity. Not all children learn at the same rate, but every single child learns. That’s what all these little learning machines can do.

A Story Repeated Here

If you have chosen to read this chapter before having read [Chapter 1](#), the [My Cousin Jean](#) story from that chapter is summarized here for you. If you already know about my Cousin Jean and me, you can skip the next two paragraphs.

My Cousin Jean

I was born in June. My mother’s sister gave birth to a daughter three months later. My three-month-younger Cousin Jean and I spent a lot of baby time together, and my baby progress was always compared to hers.

She crawled before I did, walked before I did, and talked before I did. My parents came to the conclusion that I must be mentally retarded. My father was so convinced of this that he was planning on not enrolling me in kindergarten when the time came, and just having me follow him around at work.

There are fast learners and slow learners, but there are no non-learners. Fortunately, since I was just a baby, I did not pick up on my parents' concerns. I simply learned to crawl and walk and talk at my own pace, just like every other child. However, when children come to school, their ability to learn at their own pace is taken away from them. And if, like when I was compared to my cousin Jean, a child learns at a slower rate, he or she will be graded accordingly and made to feel that he or she is slow or dumb.

Learning Takes Time - When There Is Time, It Takes Place

To make it possible for every child in school to learn, the learning materials used must give every child the time to learn at his or her own rate without ever making him or her feel that his or her rate is not good enough. The learning materials used should also allow children who learn more quickly to advance at their own pace, while not separating them from the other children in their class.

The key to leaving no child behind is using learning materials that are so simple and straightforward that children who catch on quickly can use these same materials to help the children who need more time to understand, while never slowing down the learning of the helping child.

Infants learning their first words are surrounded by people speaking to them. They are surrounded by words. If there were no language spoken to the infant, there would be no language learned. Children learning to read words need to be surrounded by other children who are also reading words. Children who learn more quickly form the necessary surroundings for children who need more time. This is why faster learners should never be separated out.

Concept – Connecting - Symbolic

In [Chapter 2](#), this statement was made: Mathematics is not rules to memorize, it is patterns to be seen. Numbers by themselves have no meaning. Numbers record concepts. To ensure every child learns, we must introduce the concept first, and only when the concept is understood, use numbers to record it. This is true for math. It will be shown later to be equally true for reading.

In mathematics, concepts can be represented with materials. Once the use of a material is understood, symbols are introduced to record the

concept. As an example, tiles, cups, and bowls can be used to represent numbers in different Bases. Once the number concept is understood, the concept is connected to the numeric symbols used to record it.

Because the concepts in math can be presented using materials, the students who catch on more quickly can use these same materials to help the students who need more time to understand. The materials make it possible for children to teach each other. To use the same concept, connecting, symbolic approach in reading, what is needed is a way to present the concept before the letter symbols are introduced.

Traditionally

Traditionally, in learning to read, children start at the symbolic level. They learn all 26 letters of the alphabet and then attempt to use these symbols to read words. The problem is that the words we speak are not groups of symbols, they are groups of sounds.

In an effort to represent the concept of reading, we group letters together in a variety of ways to represent the sounds in words. However, to read a word, a child has to know which sounds each letter represents in each word. The letters themselves represent no fixed sounds. The letter A, for example, represents thirteen different sounds in these thirteen different words: about, arm, bath, bathe, call, chair, Christmas, ear, many, measure, road, sugar, wharf.

In addition, many children find the letter symbols themselves visually confusing. Examples of potential confusion include (p-d-b-q), (u-n-v), (w-m), (t-f), (e-c), and so on, depending on the font used.

Children who have trouble mastering all of this confusion are left behind, and the ones who do understand have no realistic way of sharing what they have understood so easily with the children who have not.

The Concept

The English language combines its 26 letters in various ways to spell the 44 sounds or phonemes that make up every word in English. In mathematics, we can start at the concept level with materials and then introduce numbers as the symbols to record the concepts. We can do the same thing with the English language, as well. Each of the 44 sounds of English can be represented by its own unique sound-picture. As an example, here are two sound-pictures:



The picture of the snake represents the “S” sound at the end of the word

FUSS. The boy-and-mouse picture represents the “E” sound at the end of the word TREE. Can you blend the two sounds above into a word? If you have any difficulty reading this two-sound word, you will see it spelled in traditional letters shortly.

Concept – Connecting – Symbolic. Reading with sound-pictures is reading at the concept level. Children learn to read the sounds of words. Once they have mastered sound-reading, they learn to connect the sounds with their letters.

For the two-sound word above, there are at least four different ways to write that word with letters:

see sea C sí

The fourth way is a word in Spanish. The languages of the world have many sounds in common.

The Concept’s Forty-Four Sounds

Each of the images below represents its own unique sound in the English language. 44 sounds – 44 images.



Making What Goes Wrong Go Right

The manipulatives we use in math are the tools we use for presenting the

concepts to be learned. A geoboard by itself is just a piece of wood with nails in it. It is not the concept, it is a tool we use to present a concept. The Reading Program's 44 sound-pictures are the tools for representing the concept, they are not the concept itself.

The Concept's Origin

The origin of the concept explained below is described more fully in [The Book of IFs](#) in the [Open Court](#) and [ITA](#) sub-sections of the [1969-1970 Special Education](#) section of [Chapter 9](#). The "Sam" I will refer to shortly was mentioned in the [1972-1973 Reading Program](#) section of [Chapter 9](#).

In a summer class I took between my first and second years of teaching, I learned about the Initial Teaching Alphabet (ITA). ITA augmented our traditional 26 letter alphabet with a variety of new letter symbols, bringing the total number of letters in its alphabet to 44. The 44 letters of ITA had as their purpose providing a distinct letter for each of the 44 sounds in English. Children used materials written with the ITA to learn to read with less letter-sound confusion, since each of the 44 letters now only represented one sound. Once they had mastered reading ITA words, they would then be introduced to words written with our 26 traditional letters.

The name of the class I was taking was 21 First Grade Studies. We were supposed to be reviewing studies of 21 different beginning reading programs. However, the professor's obvious bias was ITA, and his purpose was to teach us all why ITA was the best. However, I felt ITA's contorted alphabet for its 44 sounds simply added more confusion to the learning process, so I was the opposite of impressed.

In my third year of teaching, I happened to visit a class that was using the Open Court Reading Program. What I saw in that classroom was that Open Court had pictures on the wall representing many, but not all, of the sounds in English. Beneath each picture were written the various letter spellings of that sound. I paid no attention at all to the spellings. My attention was drawn to the pictures. What I saw was a way to turn the 44 sounds of English into a truly effective tool for children's learning to read. I could see a way that would allow children to learn to read before they even needed to know the letters of anybody's alphabet. Sound-pictures were the material we could use to present the concept of reading to children before letter symbols were introduced.

I immediately shared with Mary my thoughts about teaching reading with sound-pictures. Neither Mary nor I understood at that point what the full benefit of teaching with sounds before introducing letters would be. Both Mary and I believed that teaching with the 44 sound-pictures was all we needed to do. No additional steps would be required. And, in Mary's

first-grade class, that was all she needed to do. However, for the class of learning-disabled students I was teaching in that third year, the 44 sounds by themselves would not be enough.

One student had the most influence on me as I was creating the program. Sam, a learning-disabled fifth-grade student, had the following problems: Perceptual, not being able to tell letters apart. Memory, not being able to remember all the sounds or even all the sounds of a single word while sounding it out. Blending, even if its sounds were all known, deciding what words the sounds blend together to make.

Sam taught me to reduce the number of sounds a child needed to know before beginning the process of learning to read. The number of sounds in each word should be reduced as well. The learning of words should build incrementally. Two sounds, then three sounds, then phrases two or three words long, and so on. Letters should only be introduced to record the words being read when the process of blending sounds into words was understood.

Sam had managed to make it all the way to fifth-grade without learning how to read because none of the teaching methods used in all those years had worked for him. Sam was learning now, which meant he could have been learning all along. I later learned that there was a name given to the many obstacles Sam had been facing as he had failed to learn to read. Sam was dyslexic. Dyslexic, a word I didn't even think about until Sam began teaching me how ignorant I had been and how much more I had to learn.

What I realized

It was only later that I realized the changes I had made for Sam had allowed the Reading Program to mirror the same learning pattern that the little learning machine infants experience as they learn to talk. An infant's first word is not something like "hippopotamus." Its first word is likely a two-sound word like "ma".

Infants' first words are short words with few sounds. They steadily add more words and more sounds and gradually learn to say much bigger words. They will eventually string words together into phrases. What Sam taught me was that, with the help of the 44 sounds, teaching reading to every single child was as realistic an expectation as it already is to expect every infant to learn to talk.

20% Versus 80%

According to the Yale Center for Dyslexia and Creativity, an estimated one in five Americans, or 20%, have some form of dyslexia. The Center further states that as many as 90% of all people with learning

disabilities are dyslexic. Mary and I decided to focus our efforts on the 20%. If we made it easy for the 20% to learn to read and write, the methods would be even easier to use by the other 80%.

Credibility Again

In the Donna J. email exchange in [Introduction - Credibility](#), Donna says this about the Baratta-Lorton Reading Program she is returning to the Center for redistribution:

“I thought I had a home for the program. One of my former students looked me up. She told me that later in life she was diagnosed with a rare kind of dyslexia. She was asked by the people who diagnosed her how she was able to learn to read. She told them about the program her first-grade teacher used. They told her that she was lucky, because she probably would have struggled her whole life otherwise.”

Teaching Dyslexic Children

Teaching Dyslexic children to read and write is a design feature of the Program. Once Mary and I knew Sam’s problem was dyslexia, and how common dyslexia was, we began designing the Program specifically to meet the needs of dyslexic children. Below is the guiding list we used.

Symptoms of dyslexia in children aged 5 to 12 include:

- 1 - Problems learning the names and sounds of letters.
- 2 - Problems telling apart letters with similar shapes, such as “d” and “b” or “p” and “q”.
- 3 - Trouble associating sounds with letters or parts of words.
- 4 - Trouble sounding out new words.
- 5 - Trouble learning how sounds go together.
- 6 - Trouble breaking words into sounds or relating letters to sounds when reading.
- 7 - Mixing up the position of sounds in a word.
- 8 - Difficulty spelling simple words.
- 9 - Spelling that's unpredictable and inconsistent.
- 10 - Confusing or reversing the order of letters in words.
- 11 - Reading slowly or making errors when reading aloud.
- 12 - Poor phonological awareness and word attack skills.

Phonological awareness is the ability to recognize that words are made up of smaller units of sound (phonemes) and that changing and manipulating phonemes can create new words and meanings.

A child with poor phonological awareness may not be able to correctly answer these questions: What sounds do you think make up the word

"hot"? Are these different from the sounds that make "pot"? What word would you have if you changed the "p" sound in "pot" to an "h" sound? How many words can you think of that rhyme with the word "cat"?

Young children with dyslexia can also have problems with word attack skills. This is the ability to make sense of unfamiliar words by looking for smaller words or collections of letters that a child has previously learned. For example, a child with good word attack skills may read the word "sunbathing" for the first time and gain a sense of the meaning of the word by breaking it down into "sun", "bath", and "ing".

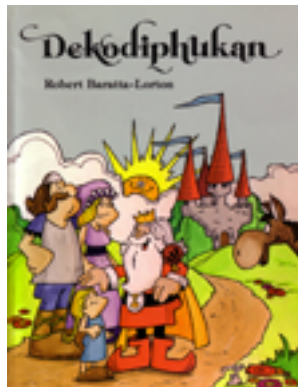
The Design Elements

What follows in this chapter is a presentation of the design elements of the Reading Program. Once the features of the Program have been presented, you will see that every one of the problems faced by dyslexic students will have been eliminated. Any impediment to any child's learning will be gone.

You will also see that making learning to read and to write easy for a dyslexic child makes it even easier for every other child. In addition, you will see that having the children who understand more quickly always available to assist the children who need more time to understand never holds any child back. It really is possible to have every child learn without leaving any child behind.

Introduction of the Sounds

The first step in the learning process is the introduction of the 44 sounds. The process starts when the teacher begins reading *Dekodiphukan* to the whole class.



The purpose of *Dekodiphukan* is not to teach the children the sounds. It is to provide the rationale for why each picture represents that sound. The sounds are learned through the Two and Three-Sound Flipbooks the teacher uses to teach the sounds and the vocabulary to the class.

Two-Sound Flipbook

The teacher reads *Dekodiphukan* to the class. The teacher decides how much is read each day. The first sound is introduced on page 9. That sound's picture is then pinned or taped to the classroom wall. The second sound is introduced on page 11, and its picture is added to the wall. The two sounds are blended into a word on page 12.

Once two sounds have been introduced, the teacher can begin classroom lessons with the Two-Sound Flipbook. The teacher may start when just two sounds are known or wait until a few more sounds have been added to the classroom wall. There are 63 words in the Two-Sound Flipbook.



Pictured above is the second word in the Two-Sound Flipbook. It is introduced when the first three sounds are known. I am using it here instead of showing you the very first word the students learn because you learned its two sounds earlier.

Notice the arrow at the start of the word. The teacher holds the word up for the whole class to see. The teacher then says, “Starting at the arrow, sounding out the word SEE, SSSSS, EEEE, SEE. Say it with me, SSSSS, EEEE, SEE.” As the teacher says “SSSSS, EEEE, SEE,” he or she moves his or her finger below each sound.

The teacher then asks, “What kind of picture do you think we will see for this word?” What the teacher is doing now is making sure every child knows the meaning of the word “see. After students have given their opinions, the teacher flips the page.



The class as a whole begins the process of learning to read as soon as the

first two sounds have been introduced. Every time a new sound is introduced, the whole class learns both to blend that sound into a word and the meaning of that word.

Noticed the triangle in the upper-right-hand corner of both the word and its illustration. While the whole class learns new words each time a new sound is introduced, the Program's individual student activities are broken into eight-sound groups. As soon as 8 sounds are known, triangle activities at the five learning stations begin. When 16 sounds are known, circle activities begin. Square activities start at 24 sounds. Rectangle activities mean 32 sounds are known. When all 44 sounds are known, the star activities are introduced.

A Whole-Class Teaching Machine

Before any students begin individual work, the whole class has been turned into a whole-class teaching machine. Everyone in class is taught every sound. Everyone in class has also been taught the words these sounds represent and the meaning of each word.

When a child working on his or her own needs assistance in reading a sound or word, there is no need to turn to the teacher for help. Any child can ask any other child for help. An individual child might not know the answer, but the answer is in the room. The whole class is a whole-class teaching machine.

A Note for the Future

The title of this chapter is [The Reading Program - What It Is and Why It Works for Everyone](#). The purpose of this chapter is to accomplish what its title promises, present the program and explain why it is able to teach every single child. In each of the sections of this chapter, samples of Reading Program teaching materials are shown. When you reach the [Overcoming Obstacles - Three Workarounds](#) section of [Chapter 5](#), you will be provided a link to a free download of the entire kit, a link to the kit's 14 free iPad apps, and a link to a video of a Reading Program presentation I made to a group of Center instructors in the summer between the second and third years of our ten-year study of the Program's effectiveness.