



The Talking Fingers Approach

The **Talking Fingers** approach to reading and writing is based on a simple idea: Text is *speech made visible*. We use our mouths to talk, to make the sounds of words. We use our fingers (with a pencil or keyboard) to represent those sounds on paper.

There are roughly 40 sounds (or phonemes) in English. It takes only 26 letters to stand for those sounds, to make any spoken word *visible*. When children learn to link those sounds and letters, they can use the alphabet code to write any word they can say. Their fingers are “talking”.

Read, Write & Type Learning System

Reading and writing are normally functions of the left hemisphere of the brain. Studies of the brain show that many children who are dyslexic (struggling to read) are trying to use areas of the right hemisphere of the brain instead of the left. When the dyslexics in two studies were taught to segment words into their sounds and use the alphabet code, their reading improved and the brain activation shifted to the left hemisphere.

As children first learn to deal with print, the new pathways they are developing should be laid down in association with well-established left hemisphere functions of speech and comprehension. Writing (encoding words), is a natural speech-based route to reading. Each word has to be mentally pronounced and then spelled out one sound at a time. As children write, their mouths may be quiet, but their brains and their fingers are “talking.” If they can put words on paper themselves, they can more easily read words that other people have put on paper.

Talking Fingers has developed two software programs, largely funded by the National Institute for Child Health and Human Development (NICHD), to lead children systematically from speech to literacy. The first, the *Read, Write & Type Learning System*, is aimed at early readers. It teaches them to identify the individual sounds in words (phoneme awareness) and to associate those sounds with letters (phonics). It also, as a bonus, teaches them to use the keyboard correctly to help their fingers do the talking. At the end of 40 lessons (one for each phoneme), most 6-7 year olds are able to decode any regularly spelled word and write any word they can say.

Wordy Qwerty Foundations of Reading and Writing Fluency

Children who have played the *Read, Write & Type Learning System* may be able to write wonderful stories at any computer, but they may not spell all the words correctly, because they need to know a bit more about spelling conventions and how words are constructed in English. The second hurdle in reading and writing, after learning to decode and encode, is developing *fluency*. Fluency requires being very familiar with parts of words and the rules and patterns used for spelling and building an extensive vocabulary. Research shows that skilled readers instantly recognize thousands of words. The appearance triggers the *pronunciation* of words and their *meaning*, but only if this information has been systematically stored, over time, with many different experiences of words, similar words, and chunks of words.

The overall purpose of *Wordy Qwerty: Foundations of Reading and Writing Fluency*, is to improve phonological and morphological sensitivity, to develop a deeper understanding of how words are constructed in English, and to provide reading and writing activities with helpful feedback, in order to increase fluency and comprehension in reading and writing. *Wordy Qwerty* has 20 lessons, with six activities per lesson, that present the following foundations for fluency:

1. Some sounds can be represented in several different ways.
2. Most words follow about 20 easy spelling rules.
3. There are many word families, (words that sound the same, or rhyme). By changing the first letter(s), you can make hundreds of words.
4. Some words are “outlaws”. They don’t follow the rules. They must be recognized quickly and automatically.
5. Writing to dictation develops vocabulary, comprehension and fluency as well as spelling skills.
6. Reading (and filling in missing words) develops vocabulary, comprehension, and fluency skills.

The Story: In *Wordy Qwerty*, two strange characters live in a marvelous machine world. QWERTY, who looks like a computer (“qwerty”) keyboard with animated eyes and hands, is a professional word coach and coaches champion readers and spellers. He also manufactures “spheres” for Midi’s remarkable music machine. MIDI, is an engaging, creative musician, who looks like a midi piano keyboard with eyes and hands. Midi is building an amazing music machine that plays when balls or “spheres” fall on strings or drums or moving marimbas—his MUSIC OF THE SPHERES. The player gets to see the machine being built and see pieces of it play, as a reward for completing the lessons. The player needs to earn the spheres by doing Qwerty’s activities, then Qwerty sends the spheres to Midi who uses them to play his machine. When the student completes the program, the final reward is to see the entire music machine in action.

SIX ACTIVITIES IN EACH OF THE TWENTY WORDY QWERTY LESSONS

1. **PATTERNS:** Children generate two lists of words by typing the names of pictures and sorting the words by a given characteristic. They are directed to notice the “patterns”, or spelling rules, by comparing the two lists. If they can’t sound out the words or spell them correctly, the Helping Hands will assist them. Qwerty and Midi talk about the differences between the two lists and derive the 20 spelling rules which then are woven into the lyrics of delightful songs.
2. **KARAOKE:** Rhymes and songs are memorable and fun. There is a catchy song about each of the 20 spelling rules. Children read the lyrics on the screen and can sing along if they want. Often the lyrics contain examples of the words that reflect the spelling rule. Children are motivated to read the words while the song is playing, or while they are singing it themselves.
3. **RECYCLER:** Lots of words that rhyme can be made just by changing the first letter or letters of a word. Some words sound the same, or rhyme, but use a different combination of letters to represent the same sound, like *sale* and *sail*. In this game, children learn other vowel combinations that can make the long vowel sound—AI, EA, EE, OA, IGH, ETC. They watch the RECYCLER drum whirl as it changes the first letter(s) of two rhyming words. They learn to quickly distinguish real words from non-words. The non-words are vacuumed away by the

Recycler Machine. Players that score less than 80% on their first try are asked to study the lists of real words remaining and click on any of them that are not familiar. They will hear a sentence that contains the word and reveals its meaning. Then they are asked to play again for a better score.

4. **POP-A-WORD:** “Outlaw” words are best memorized by learning to recognize them quickly. In this arcade-type game, children find words in a 4 word phrase as each word appears briefly, along with non-target words, in a cluster of colorful balloons. As children click on the correct balloons, they “pop”. The faster they recognize the correct words, the more points they make.
5. **WRITE STORIES:** In these cleverly illustrated 8-line rhymes, children hear and see the first line, and have to type out the second line after it is dictated. They can see and hear the dictated line as often as they need, but get more points if they remember the sentence and try to spell the words correctly. These little stories are full of words that require using the spelling rule just presented in the PATTERN and KARAOKE activity. Typing the sentences is an additional opportunity to hone their typing skills.
6. **READ STORIES:** Here are some short, engaging stories that develop comprehension, vocabulary, and fluency. Every so often, there is a word missing, and children have to choose among three possible words, the word that best fits the meaning of the sentence. These stories also include words that utilize the spelling rule, or the “outlaw” words learned in that lesson.

TWENTY LESSONS (SPELLING RULES)

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| 1. Silent E | 13. Open Syllables |
| 2. Sounds of C | 14. Double Consonants |
| 3. Sounds of G | 15. Doubling rule |
| 4. J or DGE | 16. ER, IR, OR, UR, EAR |
| 5. W or WH | 17. I Before E |
| 6. C or K | 18. Plurals: Add ES |
| 7. CK or K | 19. Plurals: Y to IES |
| 8. CKS or X | 20. Plurals: F to VES |
| 9. CH or TCH | |
| 10. LL, SS, FF, ZZ | |
| 11. OI or OY | |
| 12. VE Words | |