

Mobile Apps to Enhance Structured Literacy

Elaine Cheesman, Ph.D. (2017) DrECheesman@Gmail.com.

For reviews of apps, see *Dr. Cheesman's App Chat*, www.dyslexiaida.org Publications > Examiner

Types of Educational Technology

Educational technology includes both assistive technology (AT) and instructional technology, although the boundaries between these categories often overlap.

- **Assistive Technology** allows a person to do a task independently that would be *difficult* or *impossible* under typical conditions.
- **Instructional technology** helps the user learn new information or develop automaticity and fluency in previously-taught skills. Instructional technology can be used in two ways – to augment teacher-led instruction and to provide opportunities for independent student practice.

What to Look for in Effective Instructional Apps and Programs

1. The content is accurate and validated by research evidence and does not perpetuate theories unsupported by research evidence.
2. The design has professional sound and images to support learning.
3. The user interface is straight forward and orderly with minimal distracting images sounds.
4. The user interface is intuitive, and is age- and content-appropriate for the intended users
5. Practice activities develop automaticity.
6. The feedback for success or error correction is immediate and unobtrusive.
7. Users can access oral or written instructions intuitively.
8. Teachers and parents can access written instructions easily.
9. NO in-app purchases (IAP) for other programs / apps.
10. NO advertisements.

What is Structured Literacy?

Structured Literacy is explicit reading and writing instruction that goes by many names (e.g., Orton-Gillingham, Multi-Sensory, Explicit Phonics). A Structured Literacy lesson integrates explicit instruction in two areas: 1) Word reading and spelling and 2) Language comprehension. Delivery is systematic, cumulative, explicit and diagnostic.

Lessons typically include direct instruction and guided practice in:

- Letter naming and handwriting
- Phonology / phonological awareness
- Reading and spelling words
- Morphology (prefixes, roots, suffixes)
- Reading fluency
- Language structures (sentence structure, grammar, etc.)
- Vocabulary (words and phrases)

Letter Naming / Handwriting

Live Insights Handwriting Without Tears. <http://wetdrytry.com>. Practice forming upper- and lower-case letters and numerals while the app records their progress and errors.

* **Writing Wizard /Cursive Writing Wizard.** <http://lescapadou.com>. Upper- and lowercase letters. Add words with audio.

Phonemic Awareness and Phonics

***OG Card Deck.** www.mayersonacademy.org Letter or grapheme, sound, keyword, articulation video; spelling drill for multiple spellings of sounds. Errors: The sound /ng/ is grouped with vowels (ing, ang, ong) and /ng/ before /k/ is presented as a single unit, rather than correctly as two separate sounds -- /ng/ /k/.

ABC Magic series www.preschoolu.com Matches letters to spoken words.

***ABC Reading Magic Series** www.preschoolu.com . Blend and segment oral words presented as photographs.

- Reading 1: CVC
- Reading 2: CCVC, CCCVC, CVCC, CVCCC
- Reading 3: Multiple syllables
- Reading 4: "Phonographs" Digraphs, vowel-r and vowel team syllables in one and two-syllable words
- Reading 5: Vowel-consonant-silent e words.

ABC Spelling Magic Series www.preschoolu.com

- Spelling 1: CVC words
- Spelling 2: CCVC and CVCC
- Spelling 3: Consonant blends and multi-syllables
- Spelling 4: Silent e

Phonics Genius. www.alligatorapps.com Learn and game modes. You can add / delete words from the word bank.

Starfall.com www.starfall.com. Free website and app. Systematic sound-symbol with letters and graphemes (e.g., sh, th, ng). Engaging activities, movies, songs for the younger set. Math resources, too! Error: The letter x should be pronounced /ks/ as in *box*, not "ex" as in X-ray.

***SoundLiteracy.** <http://soundliteracy.com> Electronic "tiles" with blanks, letters, graphemes, prefixes, suffixes, Latin Roots and Greek Combining forms. The tiles are arranged by category. Instructional videos guide the user.

High Frequency (Sight) Words

***Sight Word Little Speller** www.grasshopperapps.com. Presents 220 Dolch words in five lists. Drag and drop spelling.

Fry Words. www.alligatorapps.com Has learn and game modes. Find the spoken word in list of 2-6 words.

***Fry Words Ninja – Reading Game** www.alligatorapps.com Engaging game format builds automaticity and fluency for 1,000 high-frequency words based on the Fry list. Challenges the user to match spoken words with written words that fly up from below. The pronunciation uses a mature voice appropriate for all ages. The format may be difficult for distractible students.

Vocabulary

Lars and Friends. www.larsandfriends.com/kidsapps . Teaches collective nouns (a tower of giraffes). Award Winner!

Word Hippo www.wordhippo.com

Website that provides the meaning of a word and also synonyms, antonyms, words that rhyme with it, sentences containing it, the derivatives, and etymology. Includes UK and US spellings.

* **Irregular Verbs** www.alligatorapps.com

Reading and using correct verb form. Presents some homophones in seven engaging games. Optional text-to-speech feature reads sentences. Appropriate for younger students and English language learners

Homophones www.alligatorapps.com

Provides practice using the correct homophone in sentences. Reading and using correct homophone. Presents some homophones in seven engaging games. Optional text-to-speech feature reads sentences.

* **Wordnik** www.wordnik.com

Enter any word or phrase to reveal definitions, etymologies and examples in sentences from various sources. This site is more appropriate for adults and older students.

* **Math Vocabulary** www.mathlearningcenter.org/web-apps/math-vocabulary-cards/. One can select the content deck based on subject and grade level. One can hide or show three panels: term, example, definition. There is also a web version for computers with English and Spanish versions.

* **Wordflex** <http://wordflex.com>. Pronounces words with American or UK accent. Interactive “web” of interrelated words and phrases, including phrasal verbs for English Language Learners. Can print the Word Webs as posters.

Longman Dictionary and Thesaurus <http://global.longmandictionaries.com>

Provides clear definitions using only 2,000 common words. Has special features for education (e.g., flashcards, teacher resources, printable worksheets, search on idiomatic phrases, synonyms and word histories.)

Morphology

* **Roots to Words** <http://taptolearn.com>. Type in spelling of Latin / Greek morphemes to complete a series of words in separate categories (e.g., numbers, quantity, shapes, etc.). Links spelling with word meaning.

* **Word Building and Spelling: Experiments in English Morphology**

www.neilramsdn.co.uk/spelling

The *Mini Matrix-Maker* builds word matrices from a list of word sums the user provides.

Example word matrix and word sums:

re + de + sign + ed

sign + al

de + sign + ate + ions

re	de	sign to give information	al	
			ed	
	re		ify	
			ing	
			ate	ion

Comprehension: Text Structures

* **Rainbow Sentences.** <http://mobile-educationstore.com> This builds fluency and provides practice constructing grammatically correct sentences with given words. The user forms sentences using drag-and-drop with individual words or by phrase. There are several layers of scaffold supports, including a color-coding option for words, phrases, or place holders. It features both manuscript and cursive options. There is a version for older students.

* **Sentence Reading Magic Series** www.preschoolu.com. This helps build fluency by building 324 two-, three-, four-, and five-word sentences in each app. Cursive and manuscript. Separate apps for short vowels, consonant blends. Also, High-Frequency “sight” words.

* **Follow Directions** www.alligatorapps.com. Seven intuitive games to practice multi-step directions like “Touch the star, then the moon. Before you touch the ball, touch the...”

* **Phrasal Verbs / Frasalstein** <http://thephrasalverbsmachine.org> Examples: Line up, close down. Requires good reading skills or a reading assistant. Phrasal Verbs view: view animation of given phrase (learn mode). Exercise view: choose the phrase that matches the animation. Excellent for English Language Learners.

Mind the Gap. <http://mindthegapapp.com>. Type missing words within paragraphs. Multiple genres, 15 subject areas/ 500 texts. Can limit options to function words. Different levels (not for beginners). Arcade mode for idioms, proverbs, etc. Appropriate for older students and English Language Learners

Voyage of Ulysses. <http://elasticoapp.com>. Abridged, prose version of Homer’s epic tale (The Cyclops, Trojan Horse, etc.). Narrated text in British English or Italian. Shows each tale’s location on map. Interactive animation deepens comprehension. Sometimes the user must activate animation to progress to next story

Intro to Geography: US; Intro to Geography: World. www.montessorium.com. Match map shapes to states (US) & countries (World). Fully narrated; no reading skills needed. Organized by geographic area. Presents small bits of information Systematic and cumulative instruction and review. Appropriate for older students

Kindle Books. www.Amazon.com Purchase or download free books from www.Amazon.com or www.gutenberg.org. Within text, tap word to access definition, pronunciation, translation into numerous languages. Many orally-narrated titles. Teacher can attach to overhead projector.

* **The Right Word** by Dactyl Applications. List of frequently misused words within the context of a sentence. Very challenging, even at the “easy” level. Requires reading skills.

* **Bedtime Math** <http://bedtimemath.org>. This app presents short, interesting and authentic scenarios with daily math problems presented in three different levels of difficulty. For comprehension, one can ask the student to explain their reasoning without doing the actual math.

Comprehension and Language Structures: Interactive Book Apps

* **Loud Crow Interactive Books** <http://loudcrow.com/> Interactive stories with Highlighted text narration. Beautiful books!

Dr. Seuss Beginner Book Collection. www.oceanhousemedia.com . Highlighted text narration. Touch pictures to reveal words.

Composition

* **Inspiration / Kidspiration.** www.inspiration.com Graphic organizer app with multiple templates for different text structures / genre. For comprehension, complete appropriate graphic organizer. Speech-to-text ability.

* **Grammarly.** www.grammarly.com. This is a web-based writing program that identifies complex writing errors in text and provides suggestions for the writer, who corrects each error manually. It automatically supports documents, email, social media posts. The free version identifies errors in contextual spelling, grammar, punctuation, and syntax. The premium detects plagiarism, and provides citation suggestions. The premium upgrade provides statistics on each type of error. School site licenses are available. It is appropriate for older writers and English Language Learners

* **No Red Ink** www.NoRedInk.com. This website helps students improve grammar and writing skills with an engaging, interactive platform. With the free version, one can create pre-tests, assign content lessons, provide extensive practice, and assess learning. The self-paced practice lessons provide immediate feedback, increasing levels of help, and explanations when they do not understand. Teachers can track individual student progress with color-coded charts.

Hemingway App www.hemingwayapp.com. This text editing program / app is for teachers. Enter text online to simplify written language. Color-coded highlighting identifies sentences that are difficult to read, too long or in passive voice.

All Components of Reading and Spelling

* **Florida Center for Reading Research** www.fcrr.org. This website has thousands of downloadable “Center” activities in all five components of reading – phonemic awareness, phonics, fluency, vocabulary and comprehension. It also has research and resources for teachers.

Educational App Review Websites		
http://dyslexiahelp.umich.edu/ www.funeducationalapps.com http://teacherswithapps.com	http://www.teachthought.com/category/ipad-2/ http://appsplayground.com http://appsforclass.com	http://classwithapps.com http://www.educatorstechnology.com/ www.bestappever.com www.flashcardapps.info