Literacy Apps
You Can
Create, Translate, Recreate
For Young Children
50 classic stories
300+ rhymes
10 hours of audio, pictures & text
1 new story every week at home
33 kindergarten classrooms

31 Title I schools (impoverished homes)

459 kindergarten students [ages 5-6]

27th to 47th percentile on Peabody Picture Vocabulary Test (PPVT-III)

303 3rd graders [ages 8-9] on statewide reading test

35% more scored at the at highest of 3 levels (39.6% vs. 27.02%)

less than half as many failed to meet standards (7.6% vs. 16.13%)
“Empowering Young Children in Poverty by Improving Their Home Literacy Environments”

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Distinguished Research Article Award for 2016
presented by the Association for Childhood Education International
Alert: We recently upgraded our hosting plan and some files were lost in ‘migration’. We will restore the missing files as soon as possible.

Children's Section

Rock-a-byte
Old Mother
Four-and-
Ding, dong, bell,
Chicken Little
Elsie Marley
baby, in the
Hubbard
twenty tailors
the kitty's in the
grown so fi
treetop
Went to kill a
the well

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hearatale.org
STORIES
- 70 stories in English
- 101 stories in 16 languages
- 100 exercises for 50 stories
- 240 questions over 10 stories

RHYMES
- 350 nursery rhymes
- 143 exercises for 88 rhymes
- 631 questions over 120 rhymes

WEB-BASED APP: Brainy Words 2000
- Computers, Apple mobile devices, not Android mobile devices

LINKS TO MOBILE APPS
Foreign Language Stories

All translated from the same texts - ‘The Tale of Peter Rabbit’ and others

Chinese 17
French 1
German 1
Igbo 13
Italian 1
Japanese 10
Korean 8
Polish 1
Haitian 3
Portuguese 17
Russian 4
Serbo-Croatian 1
Spanish 18
Turkish 1
Ukrainian 2
Vietnamese 5
Free apps at the App Store, Google Play, Amazon

Brainy Phonics
Brainy Sight Words
Brainy Words 2000
Rhyme A Zoo

Google Play

Amazon
APPs help CHILDREN ages 4-6 / 7-9

hungry to learn

learn best from experience

resist abstractions

resist methodically structured learning

aurally absorb language

want to control their learning – subject, speed, repetition
Apps can have negative effects

- avoid excessive screen time

- animation induces intellectual passivity, sensual vs. intellectual stimulation

- research shows apps promote reading skills, not spelling, grammar, vocabulary, math skills, etc.
Apps: 4 basic software categories

1. **web-based**: online
   - Apple or PC computer
   - iPad, iPhone
   - Android phone, Android tablet

2. **iOS / Apple**: iPad, iPhone

3. **Android**: Android phone or tablet

4. **Hybrid**: Android phone or tablet, iPad, iPhone
   - C+ software, and others
   - less powerful, less flexible, less creative
   - fewer skilled developers
Free apps at the App Store, Google Play, Amazon

Brainy Phonics
Brainy Sight Words
Brainy Words 2000
Rhyme A Zoo

Google Play
Google Play

Amazon
Amazon
Amazon
Code at Google: github.com/walterevansaugusta

Popular repositories

- walterevansaugusta/Novel idea 1★
- walterevansaugusta/BrainyWords2000 0★
- walterevansaugusta/Brainy-Words-2000-Android-2 0★
- walterevansaugusta/Spell-A-Rhyme 0★
- walterevansaugusta/8310_Project 0★
- walterevansaugusta/BrainySpelling2 0★
- walterevansaugusta/Rhyme-a-Zoo 0★
- walterevansaugusta/JIF8312 0★
children can explore alone
over 2000 unique words
virtually endless scrolling scenes
33 addresses for shops (toy, pet, etc.), school, park, zoo etc.
quizzes over 95 categories and sub-categories
praise words wers (Excellent! / You’re really smart!, etc.)
rewards: coins > stacks of coins > bags > armored cars > banks
Rhyme A Zoo  (listening comprehension)

1. listen to or read **120 traditional rhymes** with classic illustrations
2. answer 4 content or phonics **questions** per rhyme (480 questions total)
3. select **zookeeper avatar** from multiple choices
4. **earn coins** to create a private zoo
5. **30 animals/creatures** in 7 categories (herbivores, carnivores, birds, reptiles, apes, water animals, dinosaurs, pretend)
6. can cue the **sound or call** each animal makes
7. learn three **child-appropriate facts** about each animal/creature
8. **chart and stickers** may be printed at hearatale.org/resources
Alphabet Letters
1. introduces the **26 letters**
2. **quizzes** focused on one letter, or a random quiz of all letters
3. correct first attempt wins a **gold coin**, on a second attempt a silver coin
4. earn up to 5 stars for **correct consecutive answers** without a mistake

Phonics
1. **94** of the most common American-English **phonemes**
2. each phoneme with **three sample words** (audio/text/picture)
3. **quizzes** focused on one letter, or a random quiz of all letters
4. correct first quiz attempt two **puzzle pieces**;
   correct second attempt earns one puzzle piece.
5. completing a 12-piece puzzle cues a **rhyme** featuring the target phoneme
6. earn up to 5 stars for **correct consecutive answers** without a mistake
Brainy Sight Words (pre-K, kindergarten)

1. 40 Pre-Kindergarten (ages 4-5) Sight Words (Dolch)
2. 52 Kindergarten (ages 5-6) Sight Words (Dolch)
3. 2 phrases or sentences demonstrate each word (audio, text, picture)
4. Quizzes focused on one word, or a random quizzes over all words
5. earn up to 5 stars for correct consecutive answers without a mistake
6. Plan to add nouns and sight words for higher grades
Apps in Development

Brainy Stories 1 (through 5)
1. 10 Imagines (pre-K+) and 5 Classic Stories (audio, pictures, text)
2. quizzes & exercises
3. will add 4 apps with 10 stories each

Brainy Rhymes 1 (and 2)
1. 120 rhymes (audio, pictures, text)
2. 4 quizzes for each rhyme (480 questions)
3. 47 rhymes with running commentary
4. will add Brainy Rhymes 2

Brainy Spelling
1. children spell short words / names (audio, pictures, text)
2. 114 phonemes

Make a Rhyme
1. children read / master sight words
2. choose mastered words to add to template (audio, pictures, text)
3. create unique versions of 10 rhymes

Make a Story
1. children read / master sight words
2. choose mastered words to add to template (audio, pictures, text)
3. create unique versions of 6 stories
Translate or Adapt or Create an App

A. Conceptualize – determine what the app will do, how you want the app to function

B. Develop Content Resources – text, audio, pictures

C. Develop Software – Project Manager and freelancers
I. Conceptualize

A. Translate or Adapt

1. Identify app to modify
2. query if app exists in open-source code
   (github - non-copyright, public domain)
3. request permission to use any copyrighted text, audio, or picture files
4. determine if/how you want to change any functions
5. determine new text, audio, picture files you will need

B. Create a New App

1. detailed outline of player options/choices/cues
   (if X then Y, tree diagrams, etc.)
2. detailed list of text, audio, artwork required for complete project
II. Content Resources

1. create or translate **text** (visual and audio)
2. arrange audio tech, vocal talent, venue to record **audio** files
3. identify free, or commission new, **artwork**
   (may alter for language or culture)
4. identify any changes to how the app should **function**
C. Software Development

1. create **clear** text detailing **exactly** how the app should operate (what should appear on each screen, navigation buttons, where visuals should appear, how the user should progress through the game, etc.)

2. possess at least 95% of the required text, audio files, picture files

3. recruit a software consultant Project Manager (PM, geek)

4. with your PM, carefully refine your outline (1 above)
C. Software Development (continued)

6. send outline & software requirements for bids
   (upwork.com - freelancer.com - toptal.com)
   a. divide software project into ‘milestones’ (2 – 5 or 6)
   b. get bids on total project and on each milestone
   c. contract with 1\textsuperscript{st} choice bidder for Milestone 1
   d. notify other bidders you may contact them later
   [e. query universities about students doing work for academic credit]

7. with your PM, review, request revisions
   a. if Milestone 1 is satisfactory, pay and contract Milestone 2
   b. if Milestone 1 is \textbf{not} satisfactory, contract 2\textsuperscript{nd} choice bidder
Publish App
  App Store
  Google Play
  Amazon

Free - Easy if app is ready
  Supply text about app
  Identify yourself as owner
  Supply contact information
  PM or freelancer can do the rest
  Process takes about a week
Cost to produce an app: Content

I. Text
   A. Translate - you or volunteers 0
   B. Create new text - you and volunteers 0

II. Audio
   A. You direct the recording sessions 0
   B. Audio tech - supplies equipment (or your university) 0
       Talented teenager 1 hr content = 3 hrs (record & edit)
       at $15 hour x 3 hrs content = about $150
   C. Audio talent (children or volunteers) 0
   D. Soundproof room (university’s recording studio or a borrowed studio) 0

III. Artwork
   A. Use existing free or public domain art 0
   B. New picture - cartoon quality digital image $10 each (50?) $500
   C. Revise existing free art
       You learn to use ‘Paint’ or other software 0
       Digital artist - simple changes $5 to $10 each (50?) $500
Cost to produce an app: Software

IV. Software Development

A. Project Manager (bright student at $15 hour)
   +/− 50 hrs for translated app = $1500
   +/− 75 hrs for adapted app = $2250
   +/− 100 hrs to create new app = $3000

B. Freelancer
   translated app [good undergraduate could do it] $2000
   adapted app [good undergraduate / freelancer] $4000
   new app [talented freelancer] $8000 - $10,000
Total Cost Guesstimates

**Translated app**
- Text: 0
- Audio: $150
- Art: $500
- Software: $3500

**Revised app**
- Text: 0
- Audio: $150
- Art: $1000
- Software: $6250

**New App**
$12,000 - $14,000