

WINNERS OF THE

BARBARA BUSH FOUNDATION
ADULT LITERACY

XPRIZE

PRESENTED BY
DOLLAR GENERAL
LITERACY FOUNDATION

CODEX

THE LOST WORDS OF ATLANTIS

- Addressing Adult Illiteracy
- Focusing on How Adults Learn
- Playing Games to Learn

ADDRESSING ADULT ILLITERACY

In the United States alone, 32 million adults cannot read. By 2030, Dallas County adult illiteracy rates will reach 33%. Adult illiteracy rates are a rising trend that impacts everything from poverty to public health and safety. Southern Methodist University (SMU) and Literacy Instruction for Texas (LIFT) have partnered to form People ForWords, winners of the Barbara Bush Adult Literacy XPRIZE, to address the dearth of infrastructure needed to provide basic education to a growing population.

We believe reading is a human right. We want to improve adults' basic literacy skills and help ensure that those skills translate to real-world success. We envision making world-class, basic education accessible to millions through our expertise in adult education, research, and game development.

*"I want to learn to communicate with my boss to advance my job."
"[I want to] learn English, so I can help my children with their homework."
"I want to better myself. It's important in this country."*

~Comments by participants at the start of our two month pilot study, addressing why they want to learn to read English.

FOCUSING ON HOW ADULTS LEARN

While adult learners benefit from some of the teaching methodologies used with young children who are beginning to read, adults require an educational app that respects their sensibilities and encourages their continued learning. Native Spanish speakers learning to read in English require additional support in their language. CODEX was developed with these factors in mind.

LEARNING READING SKILLS

CODEX teaches literacy through games that are based on lesson plans developed by the SMU Simmons School of Education and Human Development. As CODEX continues to grow, even more games will be added to teach more advanced lesson plans. Below are examples of the lessons taught:

- Learning the phonetic pronunciation of the English alphabet.
- Distinguishing between Consonants and Vowels.
- Recognizing common words by sight within a sentence.
- Using the C-VC pattern to break down words into their onset (first Consonant) and rime (Vowel and ending Consonant).
- Combining Consonants to create new sounds at the start (blends) and ends (digraphs) of words.



"Identifying the sounds of the letters."

"[The game that] has whole words. I wrote them down, and I repeat them during the day."

"The one that joins letters to make a word. It's interesting learning how words sound."

~When participants were asked which games help adult learners the most.

PRACTICING READING SKILLS

Adult learners are motivated by how reading can help them in their everyday lives, at their job, and with their children. The player can practice their reading skills through fun, timed games, based on real-world activities. As CODEX continues to grow, even more games will be added to help players practice more advanced real-world activities. Below are examples of the practice activities:

- 🕒 Filling out paperwork with basic information.
- 🕒 Navigating a bus schedule to travel around town.
- 🕒 Paying the correct amount of cash while shopping.
- 🕒 Reading a prescription label to take the correct dose of medicine.



"Helps get my brain going."

"It helps review what you are learning in the game."

"They get you thinking."

~When participants were asked if games help adult learners with their reading.

PLAYING GAMES TO LEARN

CODEX not only addresses the educational component necessary for literacy, but also the stigma around illiteracy in order to make learning to read more fun. The adult learner plays the game as a great adventurer, traveling the world through the game environment, experiencing new cultures and history. The goal of these travels is to try and uncover the secrets of Atlantis. The player discovers remnants of the lost Atlantean language and decodes it into English using an ancient device, called a Codex. In the game, the player is actually the one teaching the Codex to read English, in order to learn Atlantean. In this way, CODEX can give the adult learner confidence: No matter their English literacy level, everyone begins at the same literacy level when it comes to Atlantean.

As the players enjoy themselves, they naturally learn the rules of the game, increasing their reading skills through repeated play. Their learning is able to be self-paced, and their motivation to continue playing is assisted by the positive reinforcements throughout the game.

REPETITION

The games in CODEX all have an element of repetition to help the player learn. There are multiple questions to answer in each puzzle, and players are encouraged to revisit answers to make sure they are correct. The more they play, the more they learn.

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CODEX THE LOST WORDS OF ATLANTIS

*"It has helped me by reading the words and repeating them."
"Because we have to repeat and repeat the words, I have been learning them."*

~When participants were asked if the game helps adult learners' ability to read.

TIMED GAMES

Timers provide a sense of excitement and challenge. The games in CODEX are scored by how many questions they can answer correctly in a set amount of time. Players are not punished for wrong answers. Rather, they are encouraged to find the correct answer and keep playing until time runs out.

REWARDS

Positive reinforcement through the giving of in-game rewards and prizes incentivize play and learning. In CODEX, players earn crystals and orbs, which allow them to unlock new locations and progress through the game. If they achieve full scores, they are rewarded with additional content, revealing the original photos of the real-world locations used in the game, as well as character artwork and profiles. Progress is marked by the number of pages filled in their in-game fieldbook and by the number of books they have collected on the bookshelves of their library. Traveling, learning about the world, and the ownership of books are all real-life goals of the adult learners we have interviewed, and we wanted to integrate that into the game for them.

SELF-PACED LEARNING

Adult learners face barriers that can prevent them from regularly attending a traditional adult education class. They have to contend with changing job schedules, family obligations, and limited access to transportation. CODEX can be used both independently of and supplementary to existing literacy courses, giving the adult learner flexibility to learn at their own pace.

*"I like the [hidden object game.] It's timed, and it gets me excited to play the game."
"Makes me feel good about myself. It's an exciting feeling when you get the [crystals]."
"I learn at home without having to go anywhere else."*

~When participants were asked about the positive aspects of playing the game.



*"I was very slow at reading, but now I have learned a little."
"Before I was able to understand a little, and I couldn't speak, but now I can speak more."
"I can read more words: reading and pronouncing."
"[It has helped me] to understand more letters and words and to improve my pronunciation."
"It has helped me with pronunciation of letters and with sounding of letters and words."*

~Comments by participants after the end of our two month pilot study.

