BabbleBot Bridges the Gap for English Language Learners

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INTRODUCTION

BabbleBot is a language-learning platform built specifically for English as a New Language (ENL) students, grounded in WIDA standards.

We offer structured speaking, reading, and listening lessons with built-in translations and phonemic support to assist with vocabulary building.

Our unique approach ensures that we align with classroom standards, with the student's success as the main goal.

PROBLEM STATEMENT

English Language Learners (ELLs) often face barriers to effective language acquisition due to a lack of accessible, standards-aligned, and engaging digital tools. Many existing resources overlook the importance of native language support and research-backed literacy practices. There is a critical need for a solution that combines comprehension, phonemic awareness, and multilingual support guided by WIDA standards.

MATERIALS & METHODS

BabbleBot was built using ReactJS for a responsive, interactive front-end and Firebase for real-time data storage and user tracking.

Lessons are structured around WIDA standards, with built-in support for translation, speech playback, and phonemic awareness.
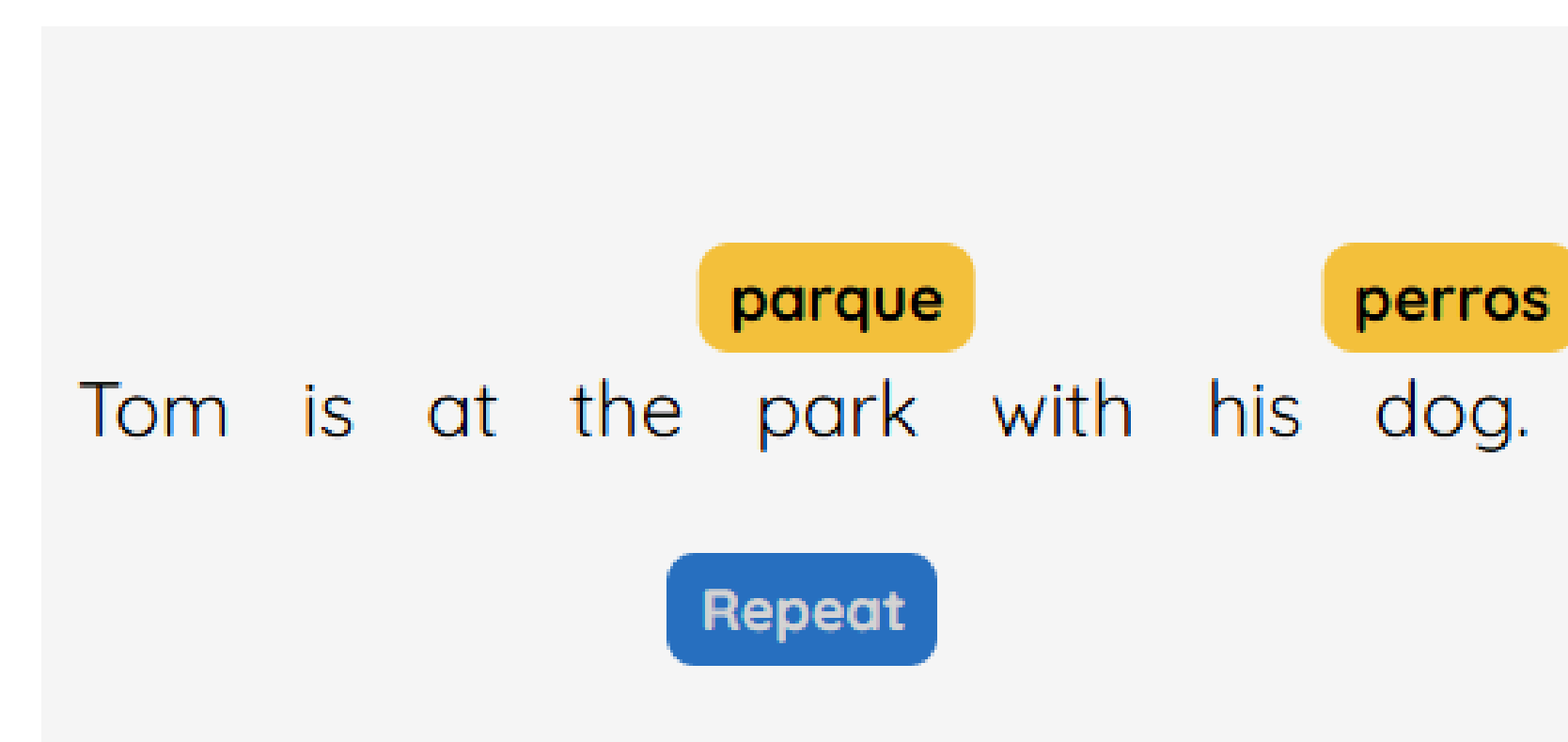
We designed the site to be intuitive for students and easily customizable for teachers.

KEY FEATURES

Based on the WDIA standards, BabbleBot (ML) features three different lesson types: Speaking, Reading and Listening. When beginning a lesson, the student can select which type of lesson to complete next. Reading lessons prompt the student to read the data, listening lessons have the story read out lout to the student, and speaking lessons record the student saying what is on the screen.

During the lesson, words are translatable, to prevent students from getting stuck on a word during a lesson. The translated words are reported to the instructor to let them know if certain words are being translated often, or if even more reinforcement is needed. When the words are clicked, the translated word is read out loud to have audio and visual association with the words.

After a lesson is complete, the student is prompted with a quiz to complete, based on the story they read. The first part is comprehension based, to ensure they are understanding and retaining what they consume. After completing those questions, the pronunciation questions begin. The students are presented with audio clips of a word from the story & must choose the correct pronunciation of the word. The quiz scores are also presented to the instructor.

The student's WIDA scores are easily updatable by the instructor if the different levels change throughout the school year. The content received by the student will also change based on the level that is in the site.

ACKNOWLEDGEMENTS

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MORE INFORMATION

Please contact connor@babblebot.xyz or kyczar@babblebot.xyz for more information

Or visit https://babblebot.notion.site/BabbleBot-Documentation-0e0816f3653142d0ac237a30dc6a92d4for more information.