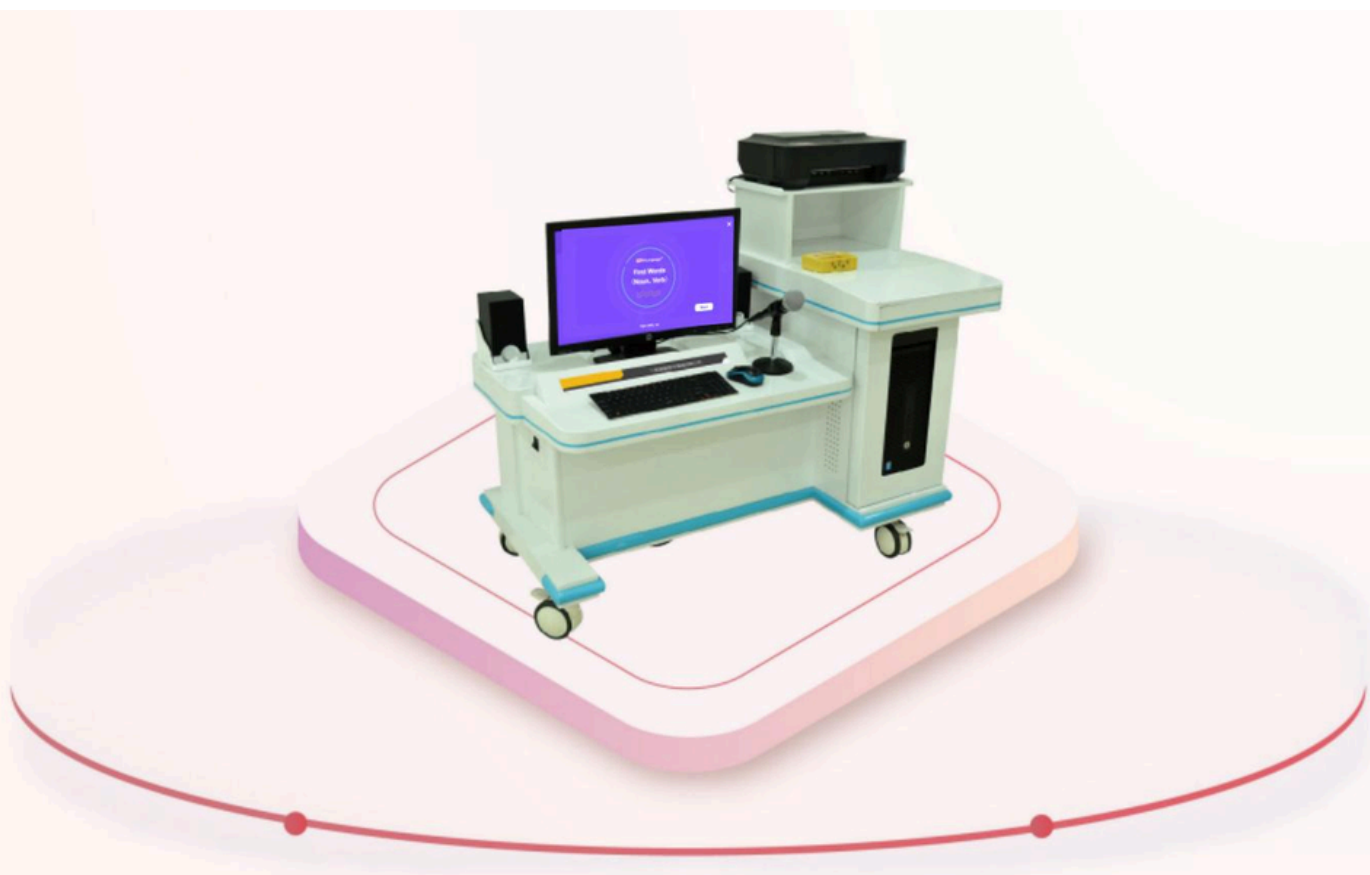


First Words

Early Language Training



Main Functions

Provides early rehabilitation for speech and communication disorders, with a focus on **early language development**.

Core Objective

Break through key barriers in early language development—helping children **understand**, **express**, and **speak naturally**.

A Key Step for Children with Language Disorders to Reintegrate into Society

Core Vocabulary Vocalization Guidance

The most challenging step in helping children move
from nonverbal to verbal communication.

Oral communication plays an essential role in supporting children
with language disorders to reintegrate into society.



First Words

Speech and Language Integration SLI Method

The Speech and Language Integration SLI Digital Method combines **language training** (linguistic rules) with **speech training** (physiological elements). Using **core vocabulary** vocalization guidance and **audiovisual feedback-based** exercises, it strengthens children's early speech, language, and communication skills, enabling them to understand, express, and interact more naturally and comfortably.

Language Training

Word Comprehension

Word Expression

Speech Training

duration variation

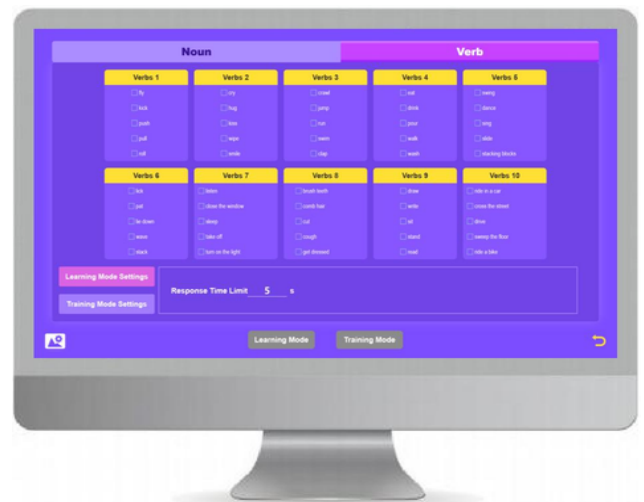
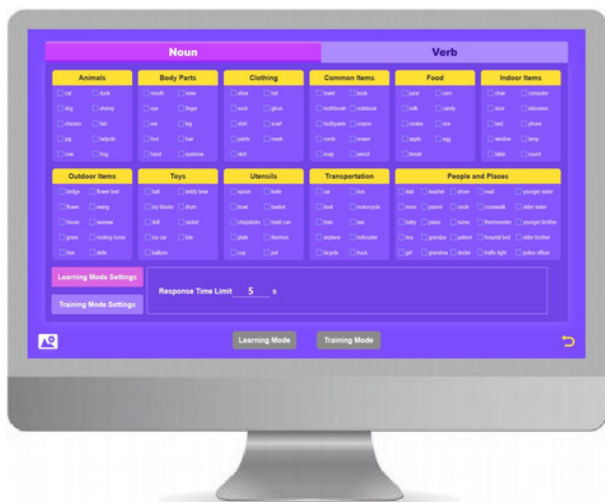
pause-onset variation

pitch variation

- ✓ **Language Comprehension**
- ✓ **Language Expression**
- ✓ **Natural Communication**

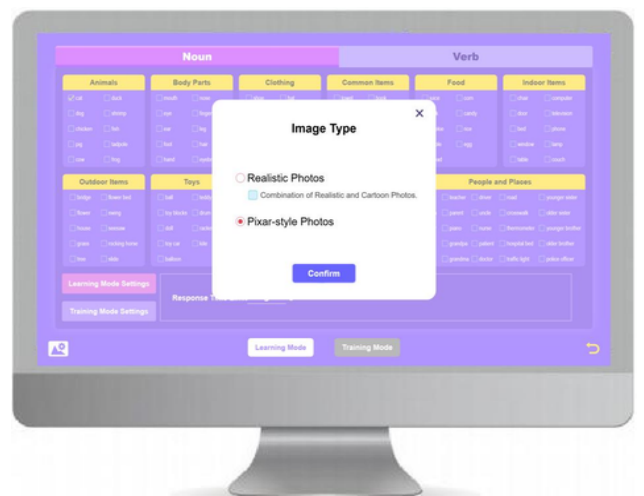
Core Vocabulary Training

- ✓ FirstWords focuses on the critical first-word stage, providing structured training to help children transition from pre-linguistic to linguistic communication.
- ✓ Using pictures, videos, and auditory prompts, FirstWords builds associations between word sounds and meanings. It helps children grasp core vocabulary and strengthen auditory perception and memory skills.
- ✓ The training includes 11 categories of everyday vocabulary—such as animals, body parts, and common items—covering 124 high-frequency core nouns and 50 essential core verbs.



Diverse Training Styles

- ✓ FirstWords Offers multiple visual styles, from Realistic to Pixar-inspired, making learning engaging and adaptable to different children.
- ✓ The Realistic option includes both realistic and cartoon materials.



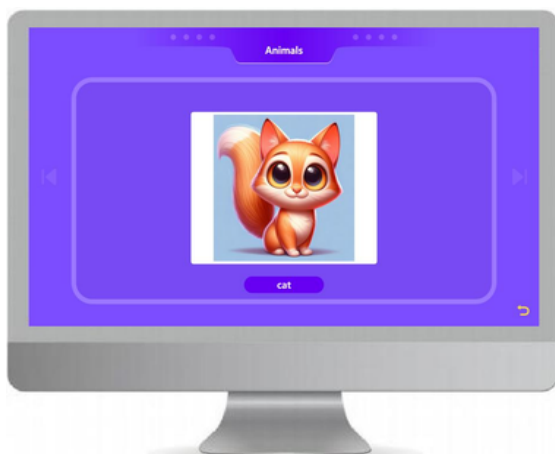
Noun Training

- ✓ **Realistic photos**: Connect training to real-life contexts, improving recognition, understanding, and everyday application.
- ✓ **Cartoon-Style Images**: Minimized distractions and create a clear, focused learning environment that strengthens core vocabulary acquisition.
- ✓ **Pixar-style images**: Spark interest and motivation, making rehabilitation more engaging, enjoyable, and effective for long-term learning.

Realistic



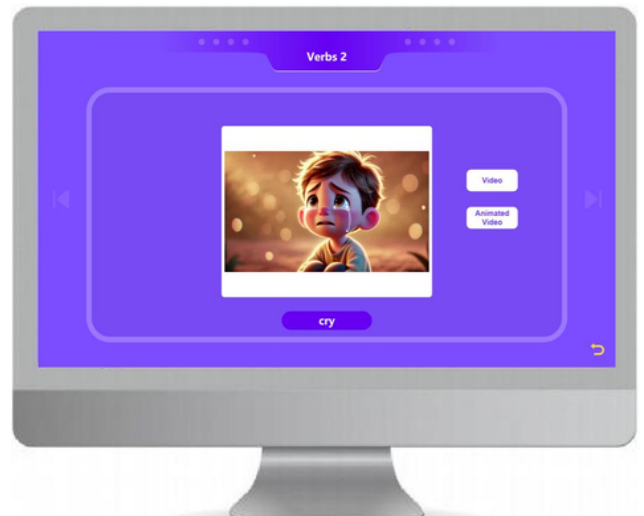
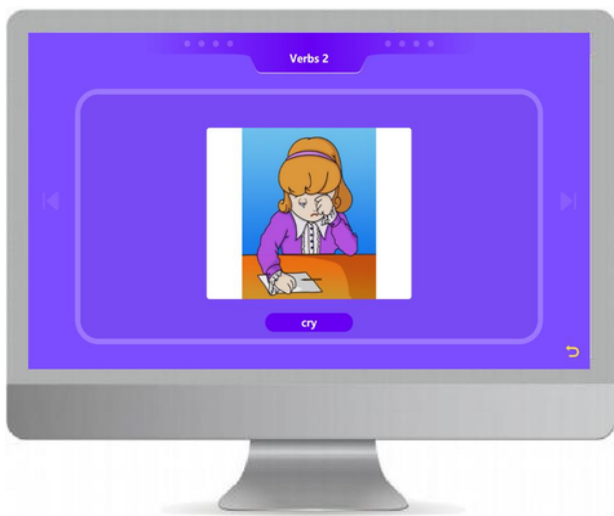
Pixar-style



Verb Training

✓ **Realistic photos:** Realistic-style verbs combine images and videos to demonstrate actions, helping children clearly understand each verb.

✓ **Pixar-style images :** Pixar-style verbs use animated images and videos to present actions in engaging ways, improving children's recognition and comprehension.



✓ **Animated videos:** Pixar-style animated videos make verb learning fun and immersive, helping children strengthen understanding through play.

✓ **Videos:** Real-life videos show everyday actions, helping children apply verbs naturally in familiar contexts.



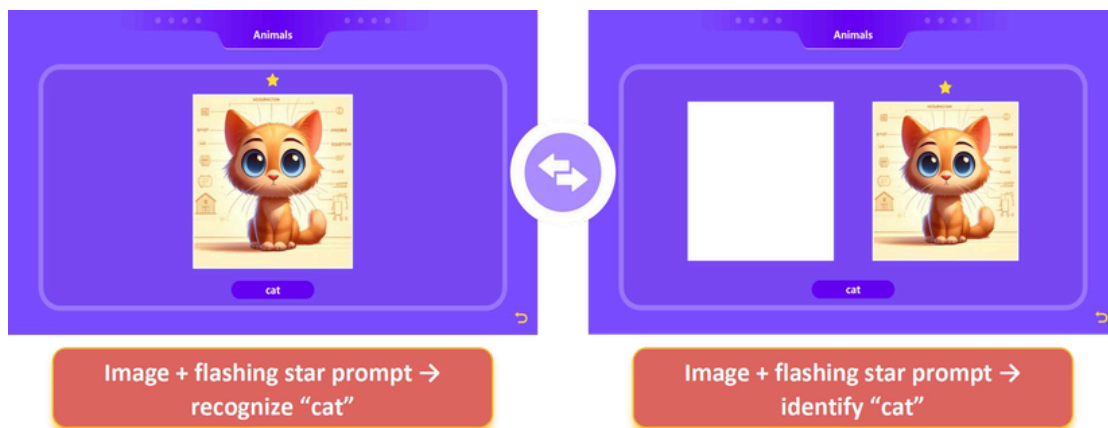
Progressive Training Stages

✓ **Four difficulty levels:** Training is reinforced through graded vocabulary recognition, with four difficulty levels—Beginner, Basic, Intermediate, and Advanced.

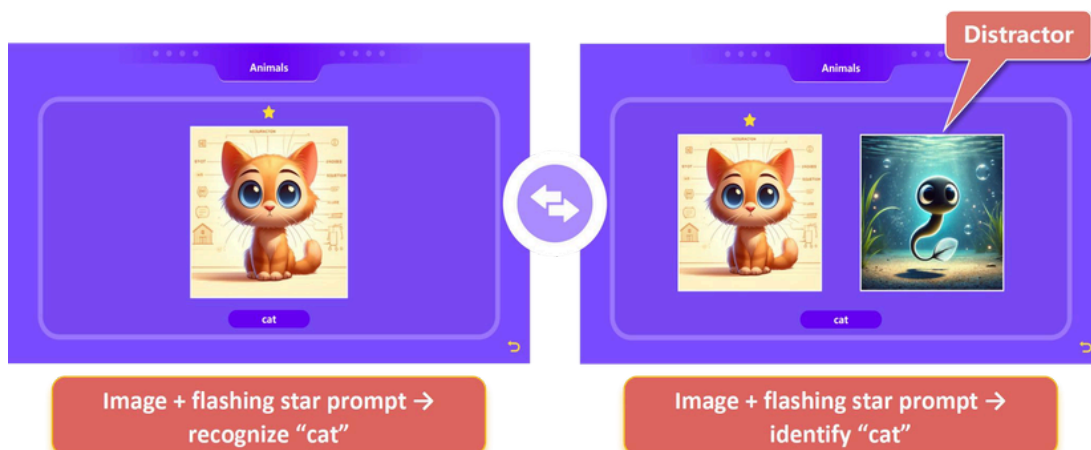
✓ **Four-choice tasks:** Training difficulty rises from two-choice to four-choice tasks, increasing with the number of distractors.

Four difficulty levels

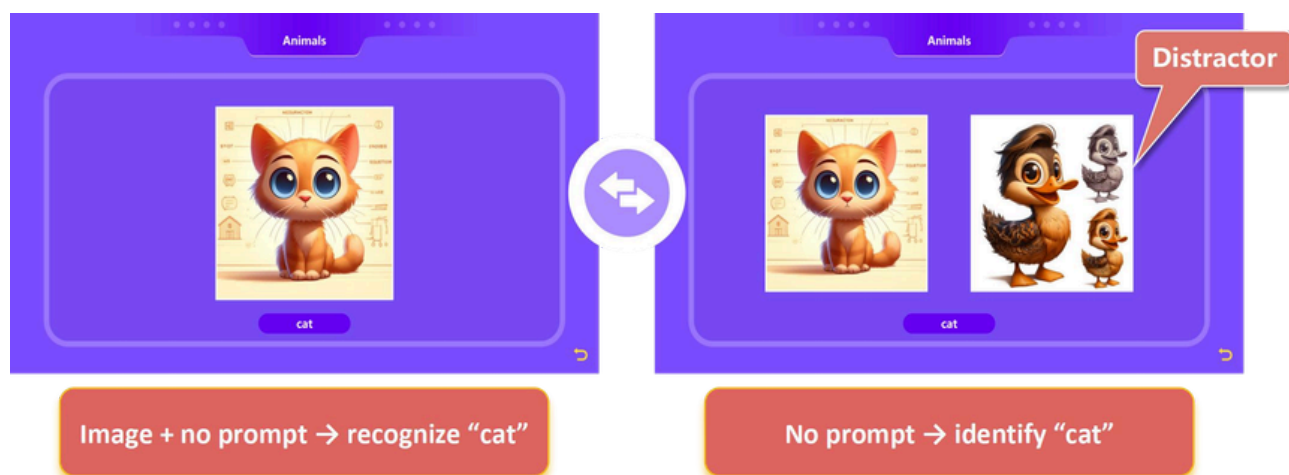
✓ **Beginner Stage:** Children first learn the target word by selecting it without distractors and with guiding prompts.



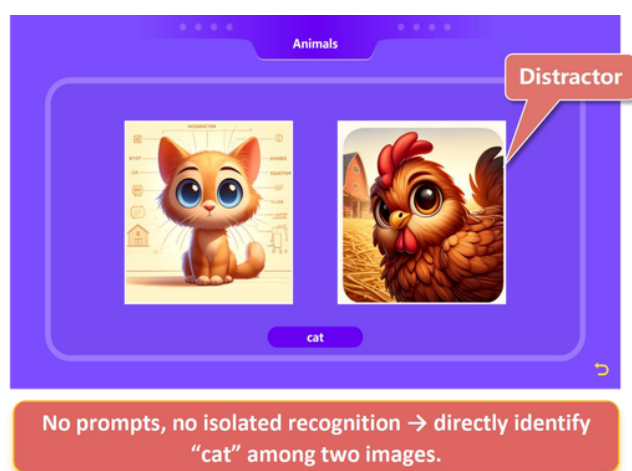
✓ **Basic Stage:** Children first learn the target word by selecting it with distractors and with guiding prompts.



✓ **Intermediate Stage:** Children first learn the target word by selecting it with distractors and without guiding prompts.



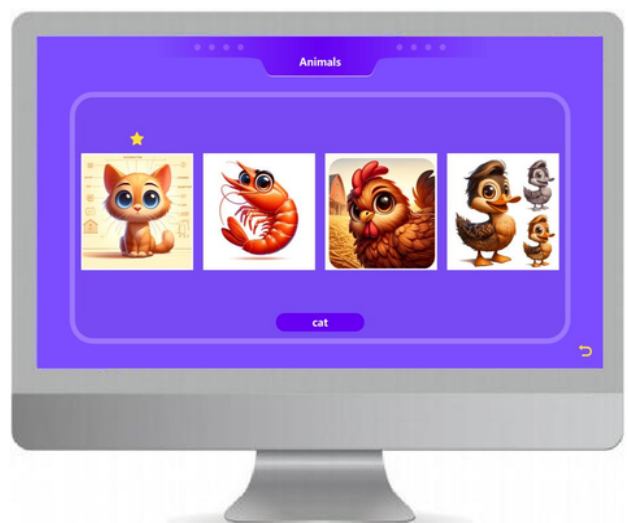
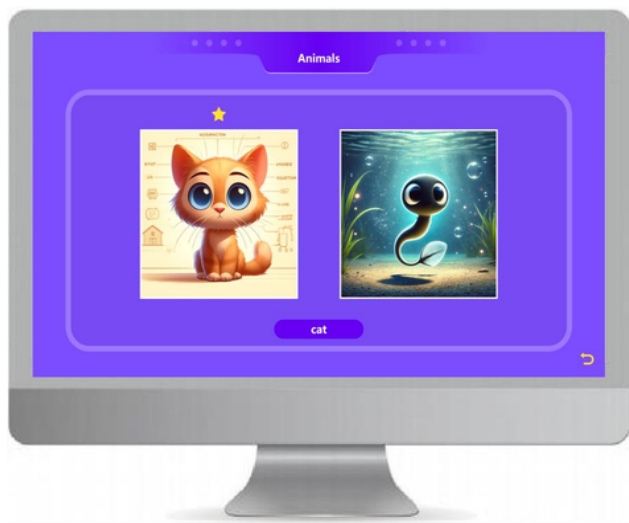
✓ **Advanced Stage:** Children learn the target word with distractors and without guiding prompts.



Four-choice tasks

✓ **Two-option training:** Two-option training (1 distractor) helps children recognize target words quickly in a low-difficulty setting.

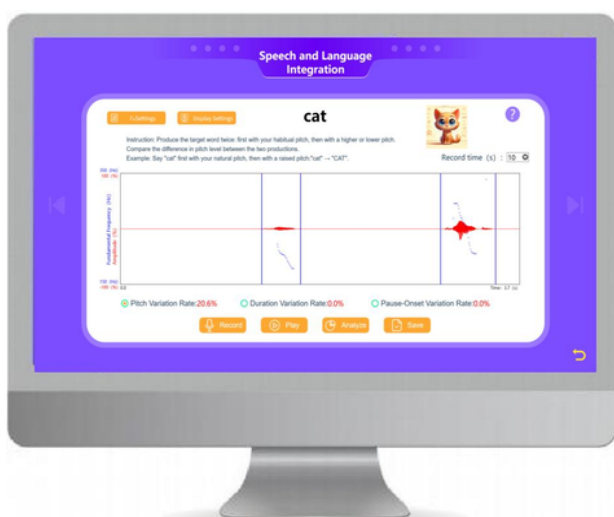
✓ **Four-option training:** Four-option training (3 distractors) improves children’s discrimination skills and strengthens language comprehension and application.



Speech and Language Integration Therapy

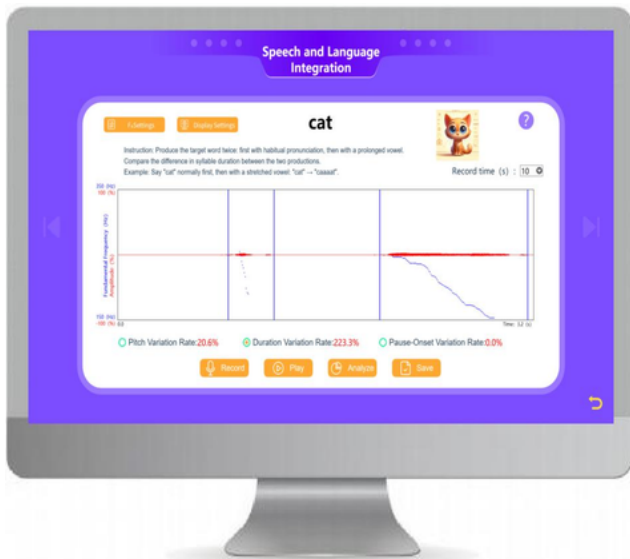
- ✓ During training, speech and language are integrated to make oral expression more natural and fluent. Training parameters include pitch variation rate, duration variation rate, and pause-onset variation rate.

Pitch variation rate



- ✓ Children are guided to pronounce the target word twice—first with their habitual pitch, and then with a higher or lower pitch. The software records both attempts and visually compares the pitch levels.
- ✓ Example: Say “cat” first with a natural pitch, then repeat “cat” with a raised pitch.

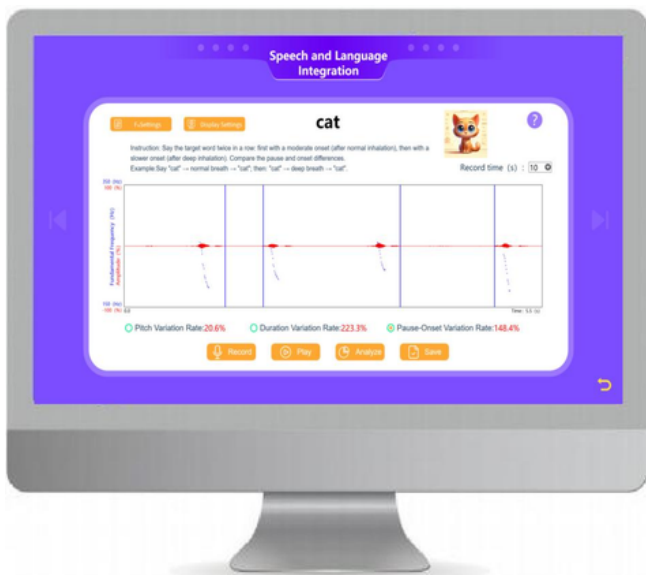
Duration variation rate



✓ This exercise focuses on vowel length and syllable duration. The child first pronounces the target word normally, then repeats it with a prolonged vowel. The difference in syllable duration is measured and displayed in real time.

✓ Example: Say “cat” normally, then say “cat” with a stretched vowel.

Pause-onset variation rate



✓ This module helps children practice breath control and speech onset timing. The target word is produced twice in succession: first after a normal inhalation with a moderate onset, and then after a deep inhalation with a slower onset. The system compares pause and onset differences, supporting fluency training.

✓ Example: Say “cat” → normal breath → “cat”; then “cat” → deep breath → “cat”.

Real-Time Progress Monitoring

✓ Provides detailed training records and progress tracking, ensuring precise, individualized rehabilitation management.

✓ During training, therapists can set response time limits to enhance children’s reaction speed, while target accuracy provides a clear benchmark to monitor learning progress.

✓ The system generates an automatic report, showing performance against targets and providing word-level scores with print options.



✓ Reports not only display detailed parameters but also record children's in-class performance, supporting refinement and optimization of training plans.



✓ Records are managed in detail, with training logs saved in real time and synchronized for upload.

