Project Proposal

DysTest.com – Teaching Tool | Interactive Game | Dyslexia Test

The Idea

DysTest.com is a web-based application that accomplishes three simultaneous functions:

1. **Teaching Tool**

   Used by educators teaching English to young students grades K-2, DysTest.com serves to expand early vocabulary, improve spelling, and enhance speech.

2. **Interactive Game**

   With a colorful, user-friendly interface; DysTest.com is designed to make the student feel like they aren't using an educational tool, but playing a game.

3. **Dyslexia Test**

   By analyzing the child's performance in the game, common early signs of dyslexia are revealed to the invigilator – allowing them to seek professional medical diagnosis.

Methods

The exercises within the game are designed to expose three common symptoms of early dyslexia:

- **Incorrect spelling** – Students are shown pictures of common objects and asked to choose between three options of spelling
- **Difficulty with rhyming** - Students are shown pictures of common objects and asked to choose which among three other words rhyme with the object in the picture
- **Incorrect vocalization** - Students are shown pictures of common objects and asked to vocalize what the object is into the program

Motivation

Dyslexia is a neurological condition which can affect an individual's reading, writing and speaking ability. It is estimated that 5-10% of the global population has dyslexia. Early diagnosis is important because with knowledge of the disorder, the child can learn coping strategies to learn to read and write just as effectively as non-dyslexic students.

Diagnosis, however, is difficult, as teachers often mistake the students as being unintelligent or lazy, even though it has been proven that dyslexia has no bearing on intelligence. Many people are not diagnosed until much later in life, and are unable to take advantage of helpful services like special education, and accommodations on college entrance exams.

Current diagnostic tools are surveys, which are delivered by a parents or teachers who must suspect their child has dyslexia in order to complete the test. DysTest.com, on the other hand, can be incorporated into the early K-2 curriculum, and can analyze speech in an interactive learning game setting, as opposed to answering a series of questions.

Further Development

Later on, the program can be modified for increased functionality, including:

- **Customization** – The teacher can develop a lesson plan for each student/class by selecting different words to spell and speak
- **Age scaling** – Different age groups show different signs of dyslexia. A variety of questions can be added to the game in attempts to reveal symptoms exhibited by students in higher grades. For example, testing separate skills such as memory, rapid autonomized naming (RAN) and using more complex vocabulary
- **Documentation** – in order to access helpful services available to dyslexic students, they have to prove they have a history of the disorder. This application can record a history of the students' progress and send that to college admission boards, doctors etc.