Aknowlegements

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Purpose

- To improve recovery time after cleft surgery
- Give children an aid/substitute/tool for traditional speech therapy
- Develop a game that promotes engagement, encouragement, accessibility, mobility and accurate feedback via speech recognition software
- To align with the objectives of speech therapy, Speech Adventure can also be utilized by therapists and parents

Procedures

- Understand the relationship between the therapist, child and parent
- Explore the feedback of speech pathologists to develop ways to progress the realm of speech therapy
- Investigate ideas in which are appealing and exciting for children, such as zoos and ‘getting ready for the day’
- Integrate Open-Ears speech recognition engine into an interactive game
- Test and configure .dic, .langmodel, and implementation files throughout Xcode
- Manage audio files amongst the different levels for better narration
- Use that motivation to spark the development of an additional level

Background

- Cleft Palate/Lip is a common congenital anomaly
- With cleft, airflow through the nose is difficult to manipulate
- Children (ages 2-6) attend traditional speech therapy
- Difficult to achieve daily practice, as well as one on one interactions between child and therapist due to budget cuts at schools
- Common complaints of traditional speech therapy include: boredom; difficulty engaging with the attention span of a two year old; repetitive exercises lessen confidence among children

Results

- Rapid-Ears and Rejecto have been recently implemented, two add-ons from Open-Ears Speech Recognition Engine
- Box2D, the Cocos2D physics engine, is currently being implemented for further development of a new scene prototype
- New level consists of a football being thrown across the screen in relation to the correctness and repetitiveness of targeted plosives
- This implies that the better the child speaks, in relation to the specific plosive being targeted, the farther the ball will fly