Leo's Pad

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Introduction

Our plan for this paper is to describe *Leo's Pad* using a framework based on the seven circumstances of a rhetorical hypothesis developed by the ancient Greeks (Arena, 2011). At the time of this writing, the pilot "appisode" of *Leo's Pad* is in fully playable beta.

Who is the learner?

Our initial audience is a child between three and five years old who is able to use an iPad on a regular basis and can follow simple instructions spoken in English.

What is being learned?

Our curriculum (spanning 30 appisodes) will support 28 dimensions of proficiency across four categories: Academic (e.g., literacy, numeracy); Cognitive (e.g., attention control, delay of gratification); Physical/sensory (e.g., fine-motor skills, speech comprehension); and Social/emotional (e.g., empathy, growth mindset).

When does the learning occur?

Leo's Pad is an interactive story consisting of a connected series of appisodes. Each appisode intersperses narrative video segments with games, puzzles, and projects. Some learning will have occurred before gameplay, in which case the games will provide an opportunity to gain fluency (e.g., with counting or simple arithmetic). Most of the learning will happen during gameplay, where "gameplay" includes both the passive and active parts of the story—seeing the characters model turn-taking, for example, or learning the meaning of new words, or learning to differentiate when presented with contrasting cases. And finally, we will have an assessment and parental feedback loop, through which we will help parents understand effective ways to support their children's subsequent learning based on their gameplay experiences.

Where does the learning occur?

As indicated above, learning will primarily happen within the game, but our parental feedback loop will support learning outside of the game in the informal "parental curriculum" space.

Why is the learner playing?

A child will play *Leo's Pad* for fun, because he or she enjoys the interactive social narrative of a group of slightly older peers inviting the child to join them for games, projects, and adventures. A grown-up will probably provide the child with *Leo's Pad* not only because it is fun but also for the more instrumental reason that it may help the child's development.

How does the learning occur?

The narrative video segments will offer moments of modeling and direct instruction. The interactive elements will offer opportunities for guided exploration with corrective feedback, plenty of trial-and-error, and possibly some drill-and-practice to improve fluency. Within each appisode, at least one game will be designed for intergenerational co-play, allowing a grown-up to directly scaffold the child's learning. Each appisode will likely be experienced multiple times, providing ample opportunity for repetition of both video and gameplay.
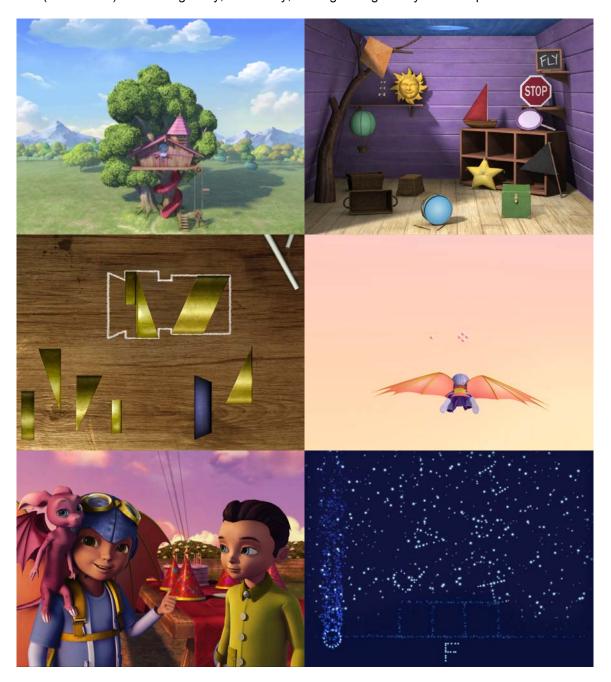
With what does the learning occur?

Leo's Pad is a commercial application that will be available through the iTunes store and perhaps eventually other tablet platforms as well.

Screenshots

The screenshots below come from the pilot appisode of *Leo's Pad*. First is Leo's house; then a hide-and-seek game with Cinder the baby dragon; then building a piece of Gally's birthday present (a

telescope); then flying to Gally's house for his birthday party (while Cinder blows smoke puffs); then Leo (and Cinder) introducing Gally; and finally, looking through Gally's telescope.

References

Arena, D. (2011, June). The seven circumstances of game-based learning (a worked example and an invitation). In the *Proceedings of the Games, Learning, and Society Conference 7.0* (p. 31-38). Madison, WI: ETC.

Acknowledgments