Learning Portuguese in VR with ELLE the EndLess LEarner

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This demonstration will allow participants to experience *ELLE the EndLess LEarner*, a virtual reality (VR) videogame that teaches foreign vocabulary terms. This game is one of an iterated suite of games designed by the authors and developed by a number of undergraduate students at the University of Central Florida. In this version, players match terms appearing as: an image, English text, text in a foreign language, and spoken in the foreign language. The terms and their formats are stored in a database and randomly selected as the game is played. The player uses the VR controller to grab a cube containing the match and place it on their virtual wrist (Fig. 1 and 2). Players are also encouraged to dodge randomly generated laser walls in their path (Fig. 3); doing so successfully increases the speed at which the player "runs" in the game. Gameplay continues until the player makes three incorrect matches.

This version, developed by computer science undergraduates, features images created by digital media undergraduates, Portuguese text, spoken Portuguese, and English text matches. *ELLE* is a learner-focused vocabulary acquisition game that is a robust research tool. Learners can select—and customize for themselves—the list of terms that appear in the game. Researchers can access gameplay data through a website linked to the game's database. The website has the ability to show language learners and their teachers about their students' progress through data visualization (Fig. 4), while also allowing researchers to glimpse the complex process of language learning with a videogame.

For more information see: https://ekiphd.com/elle/



 $\label{eq:Fig.1.Player using VR controllers to grab text cubes that match the term.$



Fig. 2. Player matching the spoken foreign term to an image cube.



Fig. 3. Player dodging the laser walls.

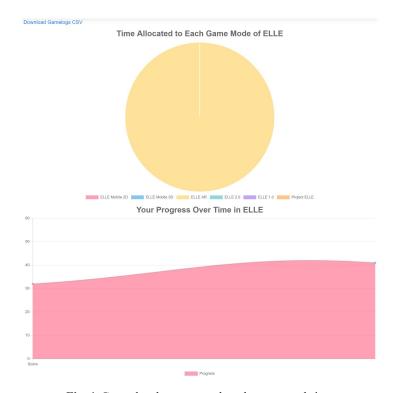


Fig. 4. Gameplay data presented to players on website.