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For our second prototype, we are testing the core mechanics of our game. We want to see if the player can walk around the supermarket environment, properly pick up objects, receive the vocab identifier and hear a voice line associated with the object. Additionally, this is when we test overall Virtual Reality compatibility using the Oculus Quest, seeking any and all issues specific to the Android hardware compared to PC-based testing.

What did we intend to learn?

We wanted to see if having a language learning experience in the virtual world would possibly help the player's experience. We believe the players are more likely to learn and have fun when a learning experience deviates from traditional methods. This game is essentially flash cards that put the player directly into the setting and allows them to utilize the game's resources.

What design questions does the prototype address?

The first design question is "How does the user interact with items?" This is the main mechanic in our game and the only design question that doesn't require time to pass. The user interacts with items by using their controller and pressing a button that will pick it up. The only items that can be interacted with are the grocery bags, food items, and NPCs. The controls are incredibly similar to the farm scene from the VRTK.

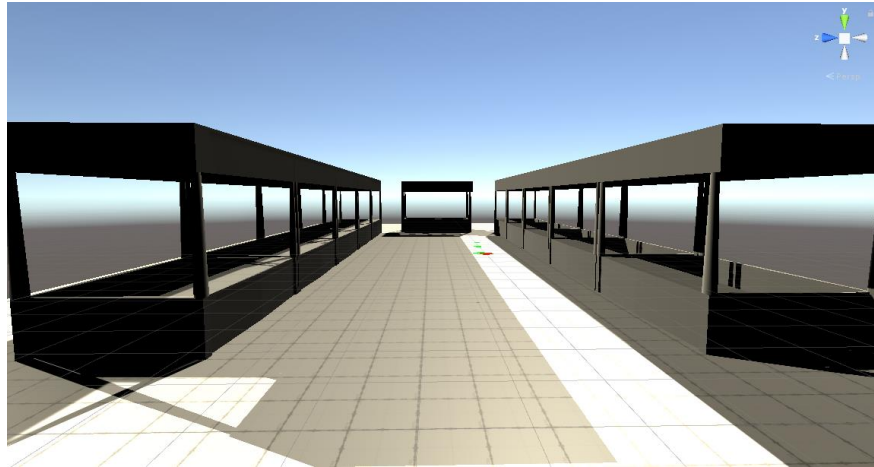
The second design question relates to how clear the game's objectives are to the player. As video game designers, we want the player to understand what to do at all times. All games should be clear and concise on what player input is required. With our second prototype, everything is communicated with that philosophy in mind. What to pick up, when to pick it up, and how to pick it up is made clear for the player.

The final design question is the one that will ultimately be answered over time. This is the main reason for our team creating the language learner in virtual reality. As stated above, we wanted to see if this experience can be an effective way to learn a language compared to traditional and less-accessible methods.

What changes resulted from the experiment?

Some changes that resulted from the experiment include the translations of the words appearing when the player picks up an item. Now the player has the ability to pick up objects and see their translations. By looking for an item from the grocery list, the player fully learns the item and its translation in Portuguese. The experience is kept at its easiest this way. Our job is to help the player learn a new language, not scold them for their mistakes.

Results and Conclusions



We mostly succeeded in creating the environment as intended. We have a great abundance of assets implemented, and the vendor stands, grounds, and boundaries were all set. All objects that needed to be picked up and prompted were also present. The foundation, overall, is solid.

Functionally, some features were more underdeveloped than intended. Sound functionality was a bit of a struggle, getting voice lines to play properly. Pop-ups work, but with some quirks on how they display at a convenient angle.



Getting builds to work as intended on an Android/Oculus Quest is also going to take additional testing and optimization. While things display properly, and inputs worked, hand tracking wasn't always present.

Testing will be an especially crucial period of development for Speak Your Mind. It is still relatively unclear of what the potential learning benefits could be of our intended design, and how additional functionality and quality of life improvements will significantly enhance its results.