

VR subtitles for the hearing impaired in a virtual classroom

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Abstract

- VR classroom has become a popular medium for online learning
- Unfortunately some people found this form of learning a hassle rather than an immersive experience
- We have designed a subtitles interface to help with the immersion for hard of hearing students
- We will talk about our VR subtitles we have created and the user settings developed for them

Who are we?



Alex Chow

Term 2 Group
leader



Joseph Carrillo

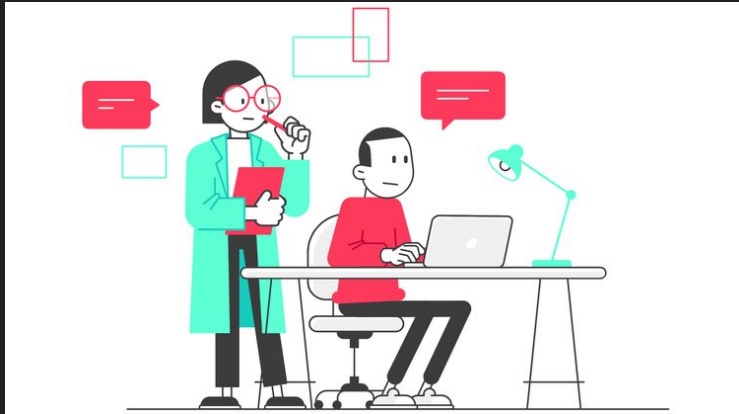
Introduction

- We have created a subtitle interface in the VR classroom
- The idea is the subtitles will allow hard of hearing students to understand the teacher the same as everyone else during a class
- As well as mimic the real life experience into the VR one



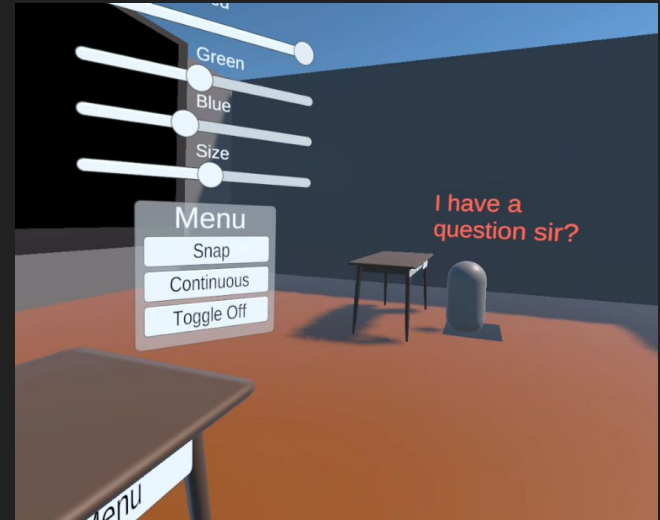
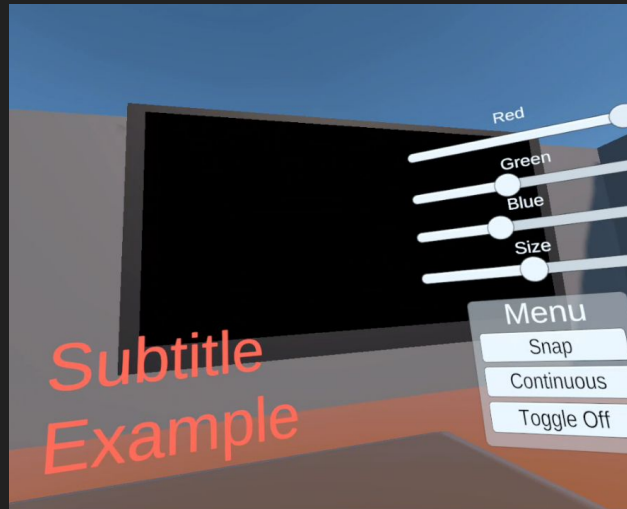
Methods

- We started with a simple subtitle interface to get a grasp of the user experience before committing on one design
- During testing, many iterations of the design existed and the project evolved as more feedback was given



Results

- Finally we ended up with a decent subtitle interface that could be used by anyone
- With custom color and size of the subtitles that the user has total control over
- Also included subtitles above fellow peers head to users can understand who is talking



Discussion and Conclusion

- During this project we have learned the positives and negatives to including subtitles in the VR classroom
- We have created a decent interface for the hearing impaired but there is always room for improvement in the project
- Like being able to move the location of any subtitle as well as the font of subtitles

Takeaways

We got general knowledge on VR developing as well as how to conduct proper testing on a VR device and converting the info into usable data to improve the project



References Slides

[1] A. Tamayo and F. Chaume, “Subtitling for d/deaf and hard-of-hearing children: Current practices and new possibilities to enhance language development,” MDPI, 30-Jun-2017. [Online]. Available: [url{https://www.mdpi.com/2076-3425/7/7/75}](https://www.mdpi.com/2076-3425/7/7/75). [Accessed: 29-Jan-2023].

[2] J.-O. Yoon and H. Choi, “The effects of captions on deaf students’ contents ... - DCMP,” 21-Jun-2010. [Online]. Available: [url{https://dcmp.org/learn/static-assets/nadh274.pdf}](https://dcmp.org/learn/static-assets/nadh274.pdf). [Accessed: 29-Jan-2023].

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