

Appendix

Design Brief Template: Part 1

School: Alice Vail

State: Arizona

Division: Middle School or High School

Team Members' Names: Parker Menjugas, Isabelle Konrad, Vincent Wilson, Leslie Duran

Project Title: Readers should have a glimpse at what the project is about and want to read more. (25 word maximum)

Text Lizard

Project Purpose: In one or two sentences explain what this project intends to do. (50 word maximum)

The purpose this project intends to serve is to give non-verbal people or people with non-verbal episodes an easily accessible, easy to use way of communication, so they may have naturally constructed conversations, even with their handicap.

Abstract: Briefly describe the people who will benefit from the project and the challenges they face. Include any inequity that the project hopes to address. (100 Words Maximum)

The people who will benefit from this problem are non-verbal people and people with non-verbal episodes. These are people that have a tough time speaking all the time, or in episodes. This can cause a major gap between them, and their peers that can have normal conversations, and make them feel left out. This app aspires to give these people a way to communicate easily and decrease daily challenges. We also hope to bring more awareness to the non-verbal community, as it is a community that is barely recognized, and a god amount of people do not even know exists.

User Research: Discuss key information about the users gathered through your research, interviews, and ongoing discussion with the user throughout the project. What did you learn about the user and the barriers they face? (200 word maximum)

We found that those who deal with periods of being non-verbal often feel isolated, as they cannot converse with their peers. While writing out words can work, it takes lots of time and can stall conversation. Things such as sign language are not known by everyone, so that is often an unusable tool. Being non-verbal can also lead to bullying, as many are not accepting of them and their needed accommodations. Many feel that if there were better communication tools, they would feel more comfortable in an everyday space. We found that the current text-to-speech applications do not do enough to combat these issues. Very few have mobile versions, and none of them are customizable to conversation.

User Insight: Discuss your team’s understanding of the experiences, emotions, and motivations of the users. This insight should inform the rest of the project and help the reader have a deeper understanding of the inequity of the user. What did you learn about how the barriers affect the user? (200 word maximum)

Our team is very aware of the experiences of the users, as three of us are neurodivergent, the main cause of being non-verbal. One of our members also experiences non-verbal episodes daily, and because of the stigma and lack of accommodation, he often must sacrifice comfort and a feeling of safety to communicate with others. In conversation with others who are non-verbal, this feeling is often shared. Think about it now, conversation is a thing you use many times every single day and being excluded from this activity because your text to speech program is not fast enough can be a horrible, and mentally damaging experience.

User Needs: Develop a specific list of the user’s needs produced from the user insight. What does the user want to help them with the barrier? (100 word maximum)

Users need an app that they can always access
User needs something easy to use
User needs something others can understand
User needs something that can work fast to keep up
User needs something comforting to the eye
User needs something easy to understand

Project Goals: List project goals and describe how they are linked to and will meet the user’s needs and address inequities and/or barriers faced by the user. What do you want the project to do to help the user? (100 word maximum)

App is easily accessible through the user's phone
 App is easy to use just uses pushes of buttons
 App uses text-to-speech voice that is easy to understand
 App works fast, as you don't need to type everything individually
 App has simple design
 App has a help page to help user understand

Key Features of Design: List key features, illustrating that the design will meet project goals. How will the project help the user? (200 word maximum)

Key features include text-to-speech page where you can type out anything for the voice to say, phrases page with buttons of commonly used phrases, emotions page with buttons to display how you are feeling and help page to explain how it is that the app works. This design meets the goals by making an any to use and understand text-to-speech app with shortcuts to be faster and more customizability. This will help the user by giving them a tool to communicate better than a normal text to speech app, or sign language which not everybody knows. This will help the user be more included and have a normally paced conversation with fewer setbacks and problems.

Impact: Discuss how design addresses inequities for the user and/or removes barriers. Input from users should be included. Does the project help the user? How? (200 word maximum)

This design will impact the problem because it addresses the problems and tries to combat them second hand. This removed barriers because it gives non-verbal people an easy way to communicate, lessening the barrier that removed them from conversations. The project helps the user by giving them a tool to communicate better than a normal text to speech app or sign language. This app requires no learning and is very easy to understand, removing the barrier of learning something hard such as sign language. This will help the user be able to communicate with their peers.

Status of Project: Describe the status of the project, including feedback from users, and discuss potential next steps. What does the project do now? What would you like to work on in the future? (200 word maximum)

The app is not completely done yet. Right now, the features we have are the text to speech, emotions, phrases, and help. The page we would like to expand on more is mostly the phrases page. As of not we have over 45 phrases inputted into buttons. However, a key feature that wi will add in the future is the ability to add your own custom phrase on that the user would customize. Our vision is that the user types in what they want into a text box, press the "Add phrase" button, and a phrase would appear on the screen, that works like all the other phrases. We would also implement a "delete phrase" button next to each phrase, so the user can remove any phrases they do not want or need.

Reflection: Show that the team has an increased understanding of human-centered design. Examples of personal growth and insights gained about designing for others and helping them overcome challenges should also be included. What did you learn during this project? (200 words maximum.)

We as a team started out knowing nothing on how to make an app, or even coding in general. I started this project not even knowing how to code, or make an app, this whole design process was a learning experience for me and my teammates which I really enjoyed because I got to learn something new. Designing an app to help people is my favorite part of this project because i get to help people who are non-verbal, or help people who are having non-verbal episodes, because then they could use the app to talk to people even in those episodes, which helps people with the challenges of not being able to talk properly, or if they speak a different language, it can help them as well. What i learned during this project was how to code, make an app, and i can use what i learned from this project to become a coder, or cyber security officer.

Prototype Graphic: A single graphic with key features labeled. It should be easy to understand, and the reader should have a general understanding of how the prototype functions by looking at the graphics.

