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CSE 440 AB
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Found In Translation

Final Report

Contribution Statement

Zachary Chun: 5% proofread and discussed content

Emily Leland: 85% Wrote paper

Kha Nguyen: 5% proofread and discussed content

Saralyn Santos: 5% proofread and discussed content

Note: this distribution was arranged ahead of time at my (Emily's) request, due to wonky final schedules. My contribution for other assignments will be lower so I did all of this one while I had time.

Team Member Names and Roles

Zachary Chun: interviewer and note taker for testing, ideas contributor, assignment writer

Emily Leland: computer and interviewer for testing, assignment writer, ideas contributor

Kha Nguyen: note taker for testing, ideas contributor, assignment writer

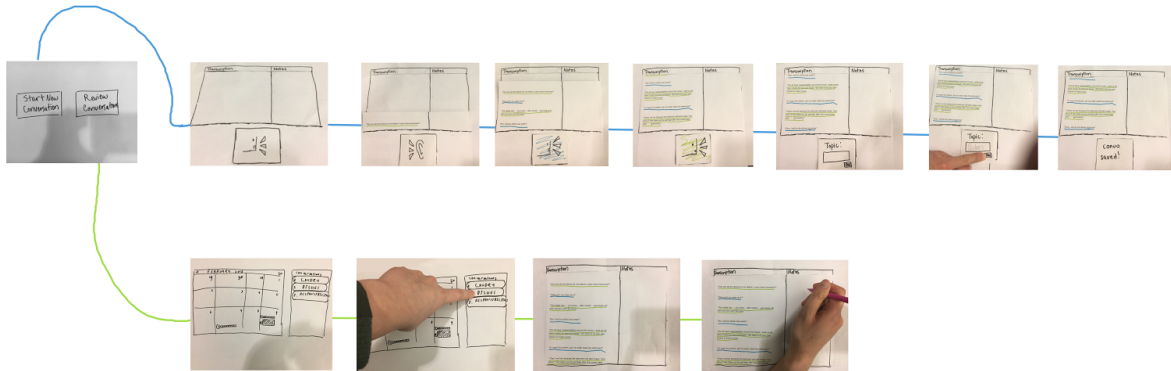
Saralyn Santos: note taker for testing, assignment writer, idea contributor, team artist

Problem and Solution Overview

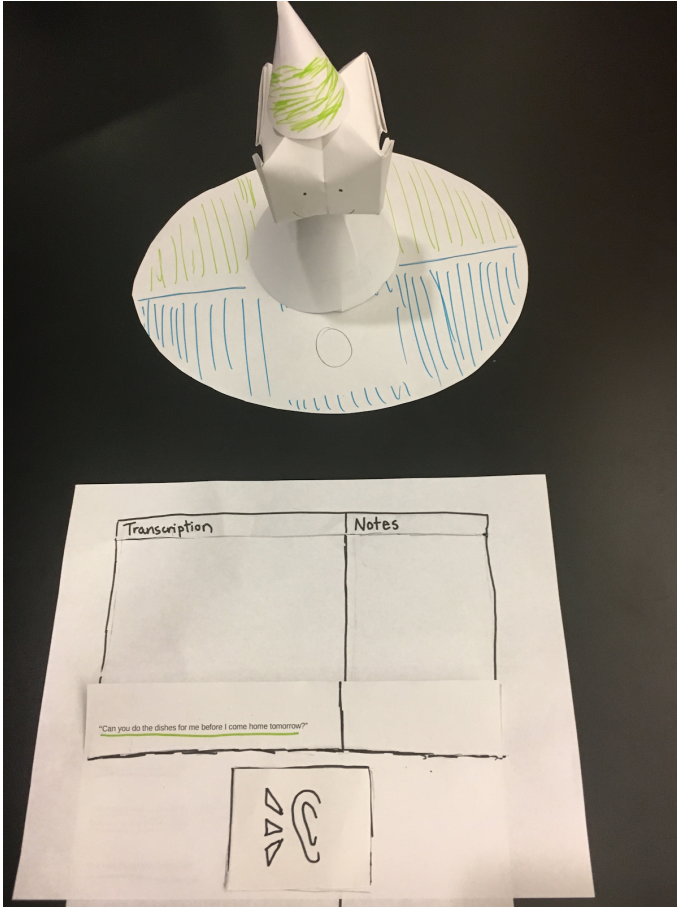
One problem common within immigrant families is the problem of a language barrier. Parents who come to the United States without a strong understanding of English, or any understanding of English at all, are often forced to rely on their children to translate between English and their native language. The children, who generally grow up in the United States, have a higher proficiency in English than their parents. However, as a result of growing up in the United States, they may lose some proficiency in their parents' native language, or may never learn it at all. This results in a language barrier not only between parents and English speakers outside the family, but also between parents and their own children. Our proposed solution to this problem is a collaborative game using a combination of a smart home speaker and a tablet application. Users can record a conversation and have the help of a smart speaker to translate for them when they wish. Additionally after a conversation they can go back and look at the transcript and their notes, listen to it to gain fluency, and reflect on how they communicated and how they can improve. As families sit together and talk, and the availability of a simple translator and the informal nature of the game encourages them to practice communicating.

Initial Paper Prototype

Overall flow of the original paper prototype



In our original paper prototype we were thinking solely of our two tasks and did not have a complete system. The first task that we focused on was conducting a conversation around a language barrier. To facilitate this we gave each user a tablet. They took turns talking by holding the button to speak, and then what they said was recorded and appeared on the transcript. When another person was speaking they got a little listening indicator showing that they couldn't speak. Additionally the hat of the translator assistant changed color to indicate who was speaking (see below). When the speakers stopped talking for three seconds a dialog popped up, assuming that they had finished the conversation asking what the topic was and then saving it.



The second task was reviewing a conversation. The user could see a month's worth of conversations and then selected one to review. They could only write more notes or read the transcript. This provided basic support for reflection on how the communication went and maybe some language learning from word translations, but there wasn't much to directly support language learning or increasing fluency.

Testing Process

Each participant in our usability tests was asked to complete the following tasks:

- Starting a new conversation
- Choosing a topic (random topics or as prompt by a home device speaker that can help solving family-related issues between parents and children)
- Communicating thoughts related to the topic
- Defining new words to gain points
- Taking notes for new words
- Finishing a conversation
- Naming the topic
- Reviewing the previous conversations
- Adding more notes to the previous conversations

First Usability Test

Our participant for the first usability test is an adult graduated from college, with a non-engineering background. She is bilingual, speaking both American English and Spanish. Emily interviewed the participant in the participant's apartment. Emily described the projects and explained all necessary tasks to the participant. The remaining group members were responsible for note-taking and asking clarifying questions via Google Hangout. We chose this environment because of the close distance between the interviewer's place and interviewee's place. Since it is also a private place, the participant felt more comfortable and confident voicing her thoughts out loud while participating in the usability testing.

This test really helped refine our testing procedure. We were doing it sort of last minute and did not have a script. As a result Emily led the users a fair amount more, reducing the helpfulness of some information. Additionally running through the actual conversation part of the prototype was awkward and poorly explained, partly because Emily was conducting the test alone and was not a very fast computer. In later tests we made sure to be more hands off when conducting the test, and used more than one person to conduct the test so that the administrator didn't have to focus on also being a computer during the complex conversation part and the interactions could be more consistent.

Second Usability Test

Our participant for the second usability test is a college student studying social work, who has no background in engineering. He speaks primarily American English, but knows basic

vocabulary in Tagalog, since his parents speak Tagalog at home. During our usability test, Sara described the project to the participant, then Zach and Emily interviewed the participant while Sara and Kha took notes. We interviewed the participant in an empty classroom on campus; we chose this environment because it was convenient for both the interviewers and the interviewee. The secluded setting also let us spread out our prototype for easy access to all our screens, and interview the participant in a setting where he could voice his thoughts without outside distractions.

Third Usability Test

Our participant for the third usability test is a college student studying physics. He previously intended to study electrical engineering, so he has somewhat of an engineering background. He speaks primarily American English, and knows how to say a few vocabulary words in Tagalog. He can understand far more Tagalog than he speaks, since his parents speak Tagalog to each other at home. However, he converses with his parents in English only. Sara described the project to the participant at the beginning of our usability test. Next, Emily and Zach interviewed the participant while Kha and Sara took notes. We interviewed this participant directly after the second participant in the same empty classroom on campus. This classroom was chosen for its convenient location. Since it was quiet, the participant was able to complete the usability test without any outside distractions.

We did the second and third usability tests very close together, allowing everyone to be more comfortable and practiced for the second test. It did not give us much time to tweak the design in response to the second test, and as a result we received some of the same feedback about one or two issues like confusion on how the score worked. Mostly though, their feedback focused on different things and the ability to more smoothly explain and run through the prototype helped us identify which usability problems came from the actual system and which stemmed from failures on our part to administer the test perfectly. Having a computer who was different than the administrator did help the tests go more smoothly, as did staying a little more hands off and generally soliciting comments on the system at various points rather than asking pointed questions.

Testing Results

For this section, see the appendix for pictures of the changes discussed here and exact descriptions of which prototypes had which problems.

Heuristic Evaluation

After our heuristic evaluation we made several changes. One not directly prompted by feedback but necessary nonetheless was the addition of a user selection screen so that the colors of each player were more meaningful. We added text to the buttons during the conversation in addition to the icons, so that the use was more clear. To support more usage of text, we added an option to change the display language from English to other languages. We also had a couple instances where we needed to give the user more control and so added quite a few back and exit buttons so that the user could switch around between screens and get out of menus.

User testing

One of the biggest problems our users had during testing was getting more information about each part of our game. Therefore, when we revised our paper prototype, we added more screens where users could get information about the game. We incorporated “How to Play” and “How to Review” pages into our revised prototype. These pages explain the various functionalities of each part of the game, as well as provide information about the smart speaker’s role in both the game and the review section. We also added a window that pops up to welcome new users to the game; this window provides a quick overview of the game’s goal and links to the aforementioned pages. Through incorporating these pages, we aim to eliminate most of the confusion our test users felt when they played our game.

We also worked on clarifying the smart speaker’s role within the game. The smart speaker, which we named “Buddy”, initially only recorded and transcribed conversations and provided translations if called upon. However, as we moved through user testing, we realized that Buddy’s full potential was not being utilized in these roles. Therefore, we also made Buddy a general assistant in the game, much like Siri. Buddy can now answer questions when called upon, as well as playback conversations when requested. Buddy can also take audio input to fill out any text fields. We clarified Buddy’s functionalities in the “How to Play” and “How to Review” screens which were previously discussed.

Another important revision we made regarded the clarity of all the buttons / small windows. Although these issues seemed small, there are a notable amount of different buttons in our design that these small issues totaled up. In testing and inspection, some of the labels on buttons were unclear, as well as whether they afforded pressing. There were some boxes that lacked a clear way to interact with them, such as filling out a topic to save a conversation under. Many of our fixes for these buttons constituted rewording, recoloring, and replacing words with different images. For example, to indicate ‘pressing this does nothing’ the button becomes

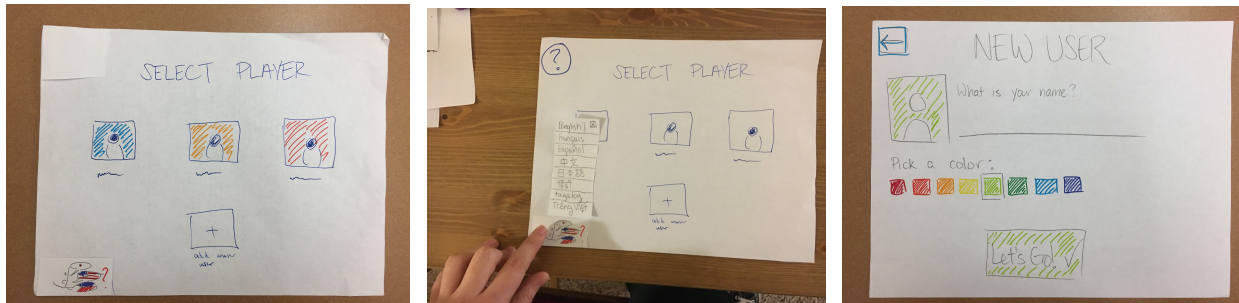
grayed out and visibly contrasts with the brightly colored “hold to speak” button / “you’re speaking” button.

Design critique

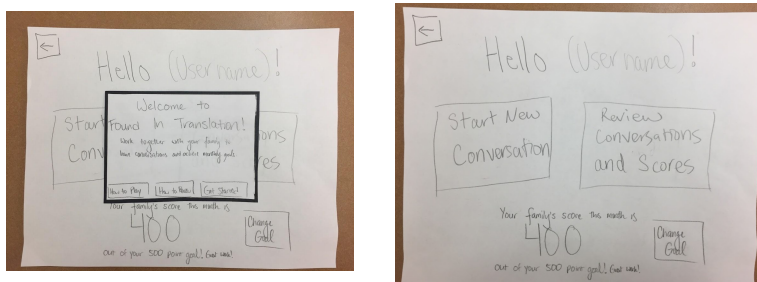
After feedback we got in section and class on our digital mockup, we added sample notes to the notes section to match the sample transcript we were using, as the blank notes section looked like useless blank real estate. We added the score to the individual tablets as well, after hearing confusion about where to find the score when just looking at our digital mockup. In our paper prototype it was on a little scoreboard next to Buddy, but since we wanted players to be either looking at each other or their tablets we decided to move the information so it would be more easily visible.

Final Paper Prototype

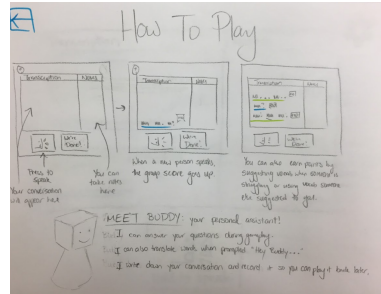
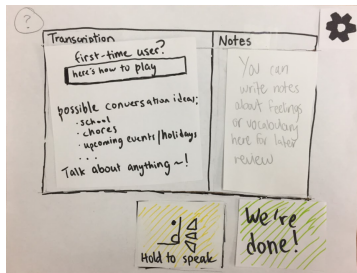
User screens



The first screen the user sees when they turn on their game tablet is the select user screen. They can optionally choose a language, but will most often simply select a user, which allows the system to keep track of their specific notes on the transcripts. They can also create a new profile. They will be prompted to write down their name and choose the desired color.

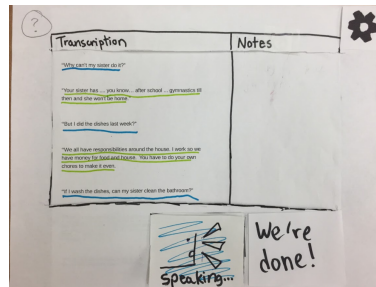
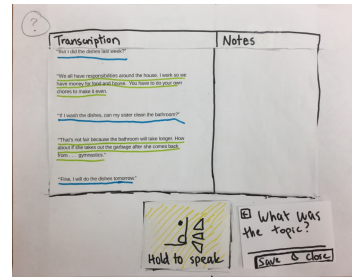
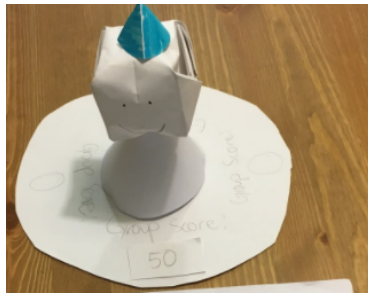
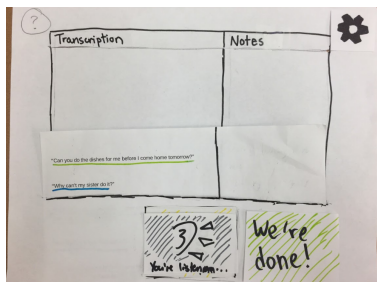


After clicking the 'let's go' button, the user will be greeted with a welcome pop up that gives the user an overall idea of what this application is for, as well as the options to view the 'how to's' directly before jumping in. Once they exit out of the welcome pop up, they can choose which action. For task 1, they need to start a new conversation so they would select the button "Start New Conversation", which begins recording the conversation. The little mediator in the center would tell them that it was now recording and they could start taking turns to speak.



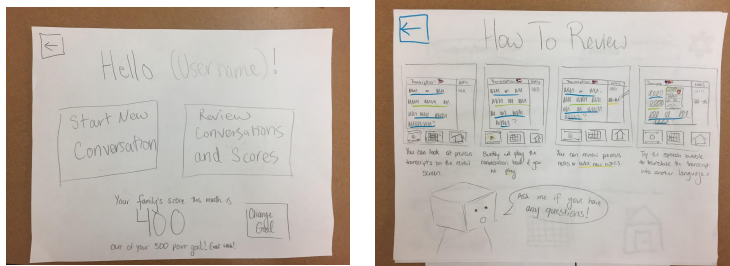
The very first screen that comes up contains some prompts, to remind the user what each space is for and make sure that they can use the device to the fullest. Since this is a game, we thought it would be fair to include some rules for the game. But we were having a problem where the users wouldn't actually look for help, so they never got exposed to the rules for scoring etc. So we wanted to put the prompt somewhere where the user could see it. The button is labeled hold, since it is hard to design a paper surface that affords holding like the speaker buttons in the lecture room do. There is also an "We're done!" button to let the users end the conversation.

In our first draft of the game rules the user can exit out, following the same pattern as the rest of the design with the back button in the top left corner.

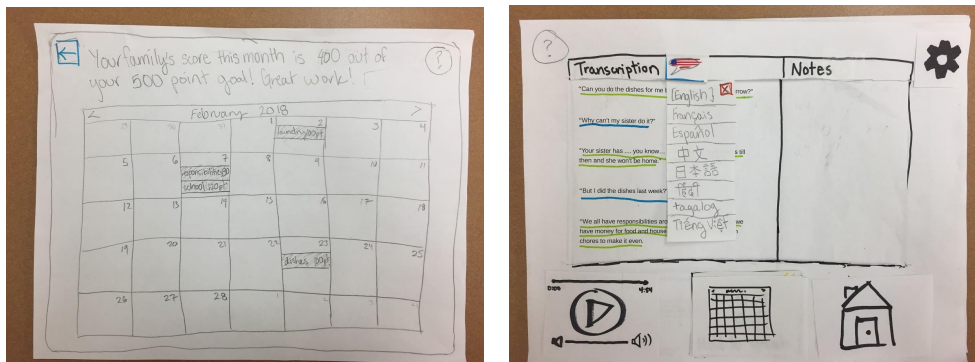


As soon as the first person speaks the prompting text disappears, and the score increases. We changed the design to be a collaborative game, because the idea of someone winning a conversation doesn't make much sense. Instead there is a group score which increases each time a person speaks. Our test user clearly understood where the score came from without looking at the rules. We also added a label to define what the ear icon on the button meant. Additionally, we added a label to the speaking button. While holding this button the user indicated that they are speaking, and other players who might not be able to see their hand can see the little mediator's hat change to the speaker's color. The user can end the conversation by clicking "We're done!" button. If the users change their mind and decide to get back to the conversation, they are still able to continue to discuss the current topic by pressing the speaking button. Then everyone can write in their own topic name for the conversation and then save it and go back to the main menu. They have completed the goal of having a conversation.

Task 2: Reviewing past conversations to improve



In order to complete the second task, reviewing a conversation, the user would select the rightmost button on this screen. If this is the first time the current user has clicked on the 'review conversations and scores' section, they will be shown the 'How to Review' page for an overview of the possible functions that a user can perform here.

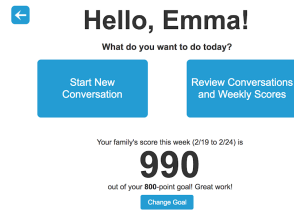
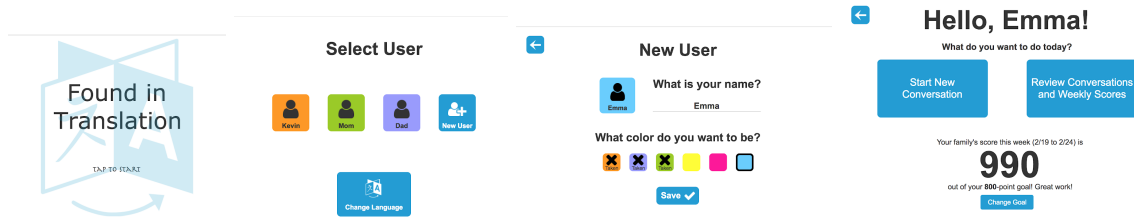


This calendar page will pop up, allowing the user to see an overview of the last month's conversations and choose which they would like to review. It also provides information about the family's score and goal for a particular month. By default, the calendar will load the current month. If they are confused on what to do next they can ask for help by tapping on the question-mark icon in the top right corner. The system will then provide them with a prompt to click on a specific conversation.

Once the user is in a specific conversation they can review old notes and write new notes, look at the transcript and listen to the audio of this conversation. From here, they also have the option to go back to either the calendar or the main menu.

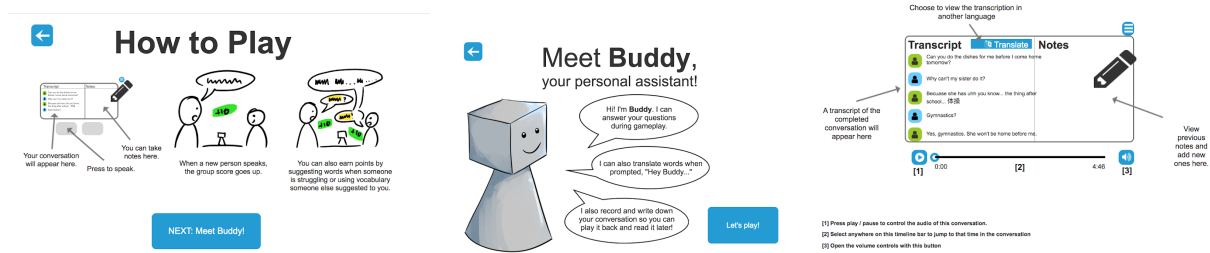
Digital Mockup

Intro, user login, home page



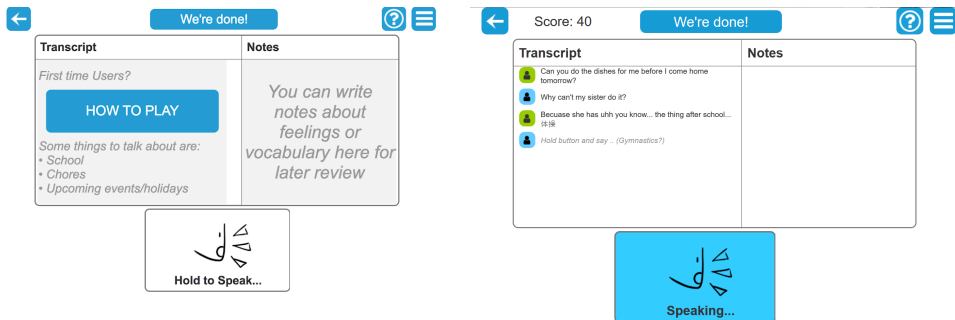
These screens indirectly support our tasks. Since we designed a game for families, we need a way to track which user is using which tablet, and to track each person's notes on a conversation for later reflection, so we needed to have a system to create users and then select which user you were. Then the user can choose between our two main tasks, holding a conversation or reviewing a past one.

How To / Info pages



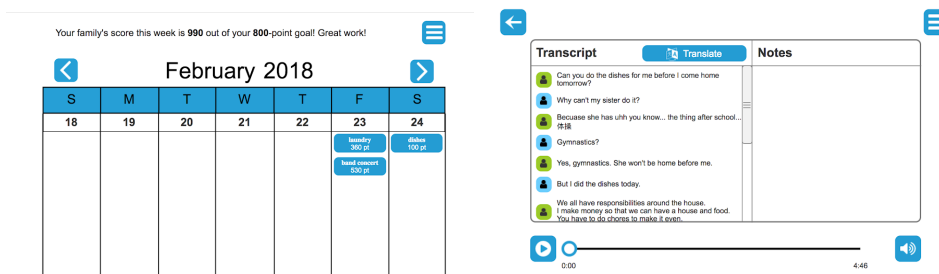
These screens also indirectly support our goals. We needed to explain the game rules and the device that was not shown in our screen mockups to users for testing.

Hold Conversation pages



These screens support our first task, holding a conversation. It focuses on trying to get everyone to speak, so it prompts users to take turns. Additionally, the scoring system rewards each turn in the conversation and disincentivizes monologuing. The Buddy can provide translations to smooth over miscommunications, but the scoring system also rewards people translating for each other and using their new vocabulary. This will help with communication beyond just the current conversation by encouraging language learning in a low stress way.

Reviewing Calendar and Conversation View pages



These screens support our second task, reviewing and reflecting on a conversation. The user can first see the last week of conversations. This encourages awareness of how often they've been having supported conversations and having enough to meet family goals. When they select a conversation they can view the transcript and their notes, listen to the recording, and see a translation of the transcript if they want to learn words in their second language, or perhaps more easily understand a conversation that was recorded in their second language by reading it in their native language. They can also take additional notes and generally reflect on how well they communicated in the conversation and how they can do better next time.

As we tested our prototype, we came across several points we wanted to improve regarding our two main tasks. For the task of holding a conversation, we added sample notes to go with our sample conversation. After TA feedback, we realized that this feature of our design was relatively ignored, even though we had a lot of opportunities to showcase it in our paper prototype. The example notes help fill out the space a little bit more instead of seeming like an empty or ambiguous space. We also moved the button that would start the sequence of saving

the conversation to the top center. Originally it was just large and to the side of the 'speak' button, but we realized it would have been awkward to write on the Notes section with this button in the way, and it wasn't well centered. In addition, we added a way to view the score on the screen. Previously the score was to be displayed on the centerpiece and with Buddy. However, after realizing that users would be spending a good amount of time looking at the screen, we knew it would be useful to also put this information on the screen.

For the task of reviewing a conversation, we mainly improved our calendar interface. We went from a monthly view to a weekly view, as the content of one month turned out to be more crowded than we had anticipated from our paper version. The weekly version gives the items a little more breathing space and can more easily display multiple conversations under one day. We also changed the game's goal from monthly points gathered to weekly points gathered, in order to line up better with this interface change.

Discussion

The process of iteration taught us how important it is to let go of previous ideas in favor of a clean new concept. At first when we were redesigning our original paper prototype we were simply adding little popups to provide information and additional interactions. But this was cumbersome to interact with and some of our users were slow to exit and go back. To minimize clicks we instead scrapped the idea of providing direct help in specific concepts and added a new streamlined introduction to the system. This allowed us to avoid many of the popups that we had been depending on and made the flow of the system much better. We also got first hand evidence that different users will reveal different problems. When we did the heuristic evaluations, despite not revising the prototype between, we got mostly different feedback, with only one really obvious flaw that overlapped between critiques. Just doing one test of a specific design is not nearly enough.

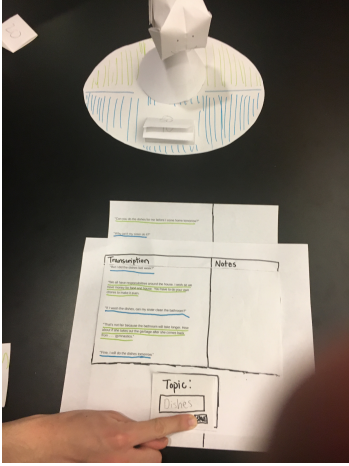
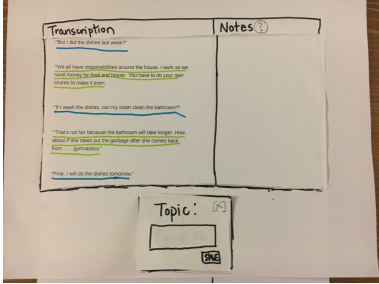
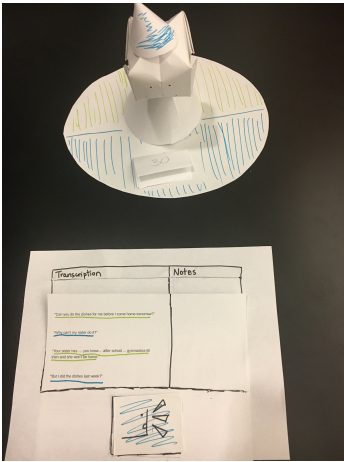
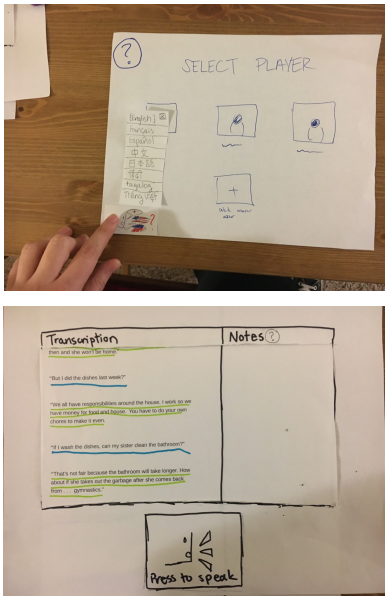
We started out with a very bare bones system. The process of iterating allowed us to build out our system gradually and refine each piece as we added it. For instance, we realized that we needed to add windows that included more information about how to play the game after users expressed confusion during the testing phase. We then changed how that information was conveyed as we got feedback from our user tests so that now if the user has never seen our system before they are always exposed to some basic information.

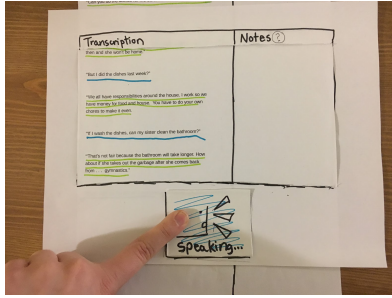
Our first task stayed largely the same. The ways that we supported it changed slightly, but the main focus was always to help a family conduct a conversation by providing optional translation in a private setting. The thing that changed was our scoring system. It started out as a competitive game, like most games are, but the absurdity of trying to win a conversation seemed absurd to us so we changed it to be collaborative, so that the scoring system enabled self-tracking. Our second task's focus did shift somewhat. When we started most of the functionality was focused on reviewing just the text of the conversation in the language that it had been recorded in. We realized thanks to user feedback that we were missing an opportunity to also support language learning more directly by allowing the user to listen to the conversation and read a translated version of the transcript. So in addition to reviewing communication techniques, the user can focus on new vocabulary and learning words even after the conversation has finished.

We could have used more iterations at the end. We would have benefited from getting more user feedback after creating our digital prototype. We did well in the beginning of the process making changes to our design between every test, although even when we had multiple different people's feedback on a single design, as was the case for the heuristic evaluations we did in class, the testers generally had different feedback. This makes us think that we ought to have tested our digital prototype with at least a couple of people, since it did prompt us to make changes to the UI, and we don't have much feedback on whether the final system was easy to interact with.

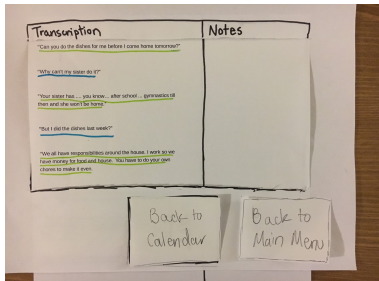
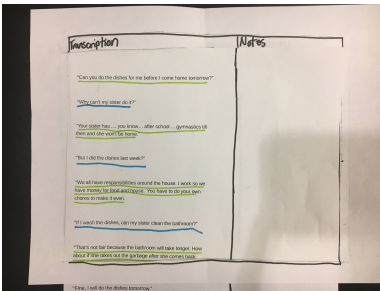
Appendix

Issues identified from heuristic evaluation

| Before | After | Incident |
|---|--|--|
|  |  | <p>User Control [severity 2]</p> <p>After a conversation, users are prompted to name their desired topic. However, the previous design doesn't support them canceling the end screen and getting back to the conversation. This violates user control. For that reason, an extra button (x mark) is added at the top right of the end screen to let users bring back the push-to-talk button and continue the conversation.</p> |
|  |  | <p>Visibility of system status [severity 3]</p> <p>The speak icon doesn't indicate its functionality well as taking a turn to speak in a conversation. This violates the heuristic of visibility of system status. Therefore, we revise our design by letting users choose their most comfortable language and explaining to them how that button functions. Under the speak icon, there will be a sentence in the desired</p> |

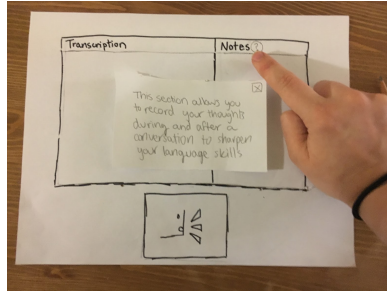
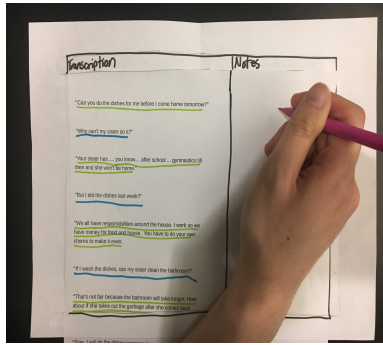


language tells users to hold the button to speak.



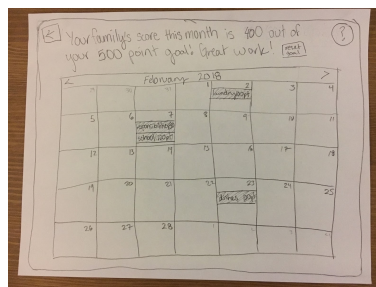
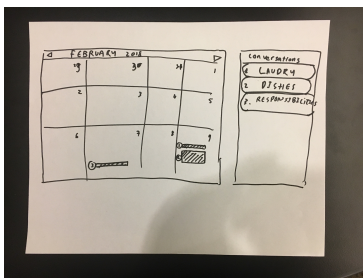
User control [severity 3]

Missing an exit or going-back-to-menu button violates heuristic of user control. One of our evaluators noted that there was no way to get out of the review page in our old design. Therefore, we added back buttons to solve the bug in the design. We wanted to make sure as well, that if they simply wanted to go back to the main menu that they had the option, so that they didn't have to go through an intermediary screen.



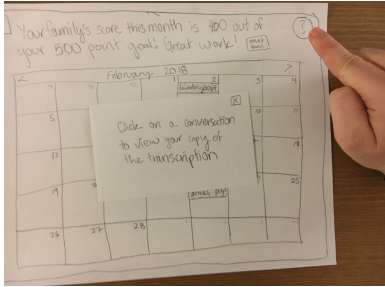
Aesthetic and minimalist design [severity 3]

While the evaluators called out that they were “unsure what notes section is for and how to use it,” we thought this was not so much a minimalist issue as it was a lack of giving the user proper information and prompting. We sought to fix that by adding a little help button next to the notes section title for first time users who don’t know what they should use the area for. We also need to make sure in our demonstrations to explain that the prototype is supposed to be a tablet and explicitly give them a pencil to use for a stylus, thus predisposing them to look for somewhere to write.



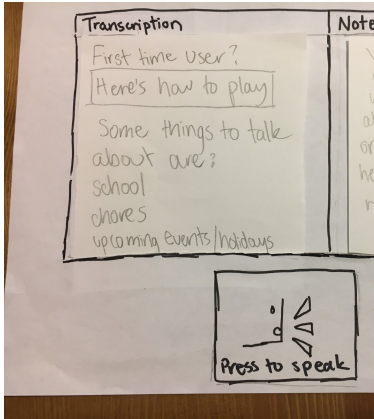
Consistency and standards [severity 4]

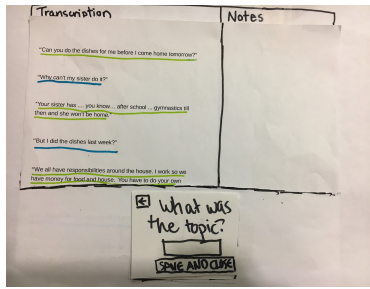
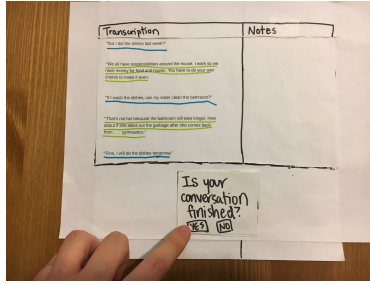
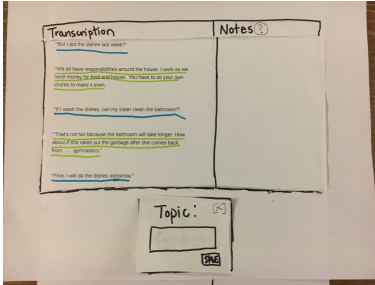
Because our calendar was not directly manipulatable, like a calendar is in most scheduling services, one user commented that they were very unsure how to use it and how the sidebar mapped to the calendar. They asked “Can we view several convos at once?” In order to resolve



this we modified the calendar to follow typical outside conventions, and added a help button in case people are confused (since it's hard to simulate buttons on paper).

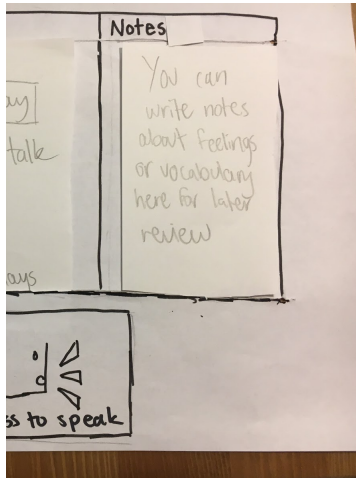
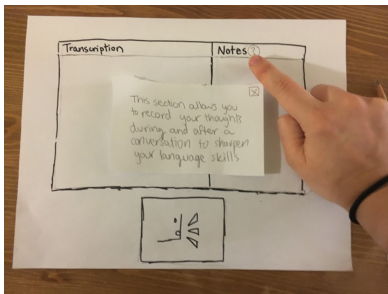
Results from first usability test

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| <p>No previous analog</p> |  <p>The sketch shows a rectangular window divided into two columns. The left column is titled 'Transcription' and contains the text: 'First time user?', 'Here's how to play', 'Some things to talk about are:', 'school', 'chores', and 'upcoming events/holidays'. The right column is titled 'Notes'. Below the transcription window is a separate box containing a microphone icon and the text 'Press to speak'.</p> | <p>Conversation prompts for users [severity 2]</p> <p>After some feedback in section, we decided to add in some sample topics to show before any conversation begins. These topics would be shown randomly, so every time a user loads the new conversation screen, they wouldn't know what the suggested possible topics are. Once the users begin talking, the prompts and this window above the transcription will vanish.</p> |
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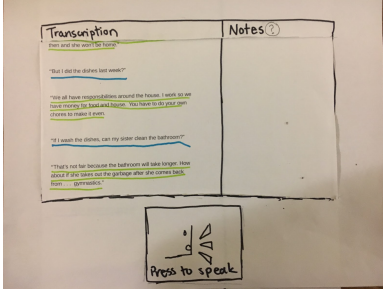
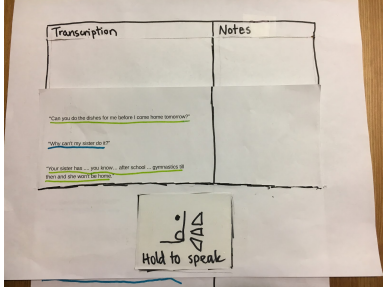
Topic saving unclear task [severity 3]

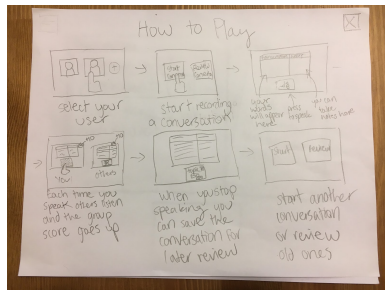
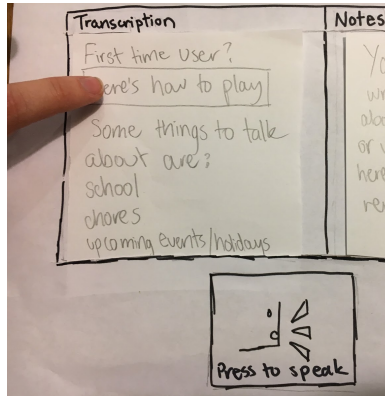
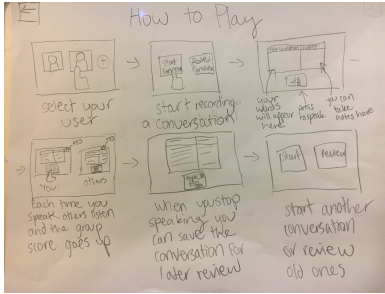
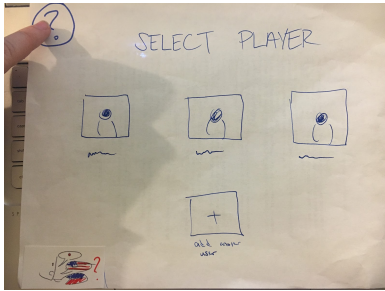
Our user tester expressed confusion when this tab popped up. The tester was not certain what the intent was - if they were supposed to actually type in a topic or if there were any action required at all. This was even after Emily had told her that the conversation was finished and this popped up. To aid this, more explicit prompts will come up in individual steps. If the conversation isn't over, the user can always just say no and continue.



Notes usage [severity 2]

Our user tester didn't notice the Notes section of this screen. Even when prompted for 'how would you record your thoughts on the conversation', the user suggested an alternative (voice recording) instead of the notes panel. To make this more clear, we've added an additional blurb that will call attention to how to use and what the area of the screen is for. The first time the user tries to tap / draw on that area, the note will disappear

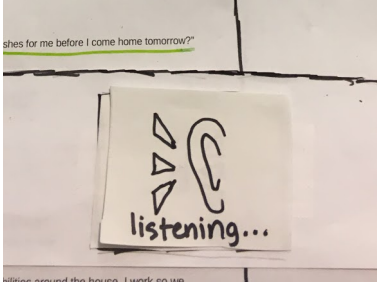
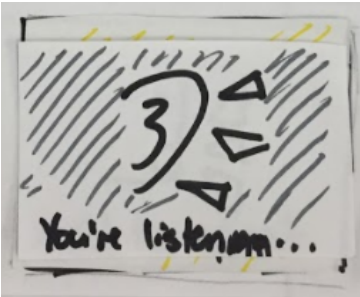
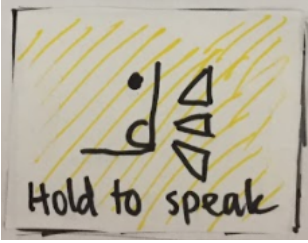
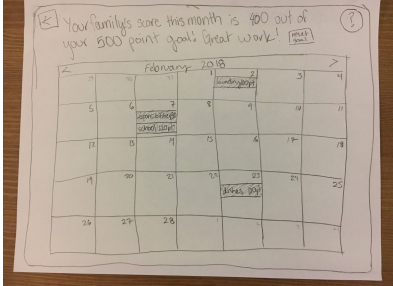
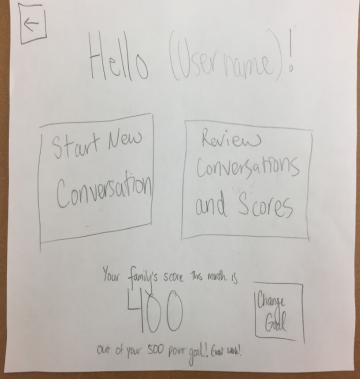
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| | | for a clean writing surface. |
|  <p>The image shows a hand-drawn prototype of a transcription interface. It features two columns: 'Transcription' on the left and 'Notes' on the right. The 'Transcription' column contains several lines of text, some of which are highlighted in green. Below the transcription area is a button labeled 'Press to speak' with a microphone icon.</p> |  <p>The image shows a hand-drawn prototype of a transcription interface, similar to the one on the left. It has 'Transcription' and 'Notes' columns. The 'Transcription' column contains text, some highlighted in green. Below it is a button labeled 'Hold to speak' with a microphone icon.</p> | <p>Confusion on Holding button [severity 2]</p> <p>Our user tester (along with the testers from the heuristic evals) used roundabout actions by wanting to speak but only clicking on the button. On-click (instead of on-hold) the user gained control to speak, but loses it after releasing. Since the buttons do change from a speaking (highlighted color) to a neutral button color, the user was able to figure out to hold to speak, so it was not an unstoppable problem. However, we've relabeled it so that it now says "hold" to speak for clarity.</p> |



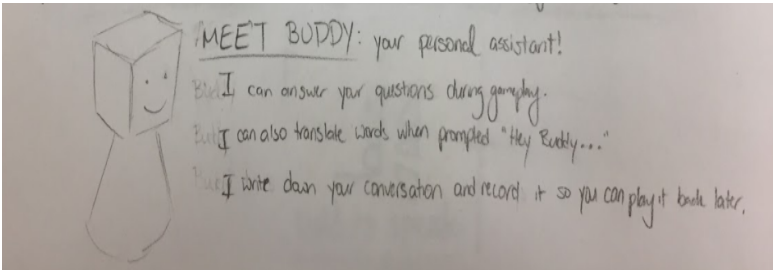
Introducing Game Rules [severity 4]

During both the heuristic evaluation and the user test, we as the computers and test runners noticed the large amount of instructions and prompting we had to do. To make this actually usable to users who would have less guidance, we've included more helpful information gaining buttons - in both the very first screen on startup (selecting the user) and on the landing page for new conversations. These options give both the option to review the rules and the second addition gives a nice reminder that some pointers exist if wanted.

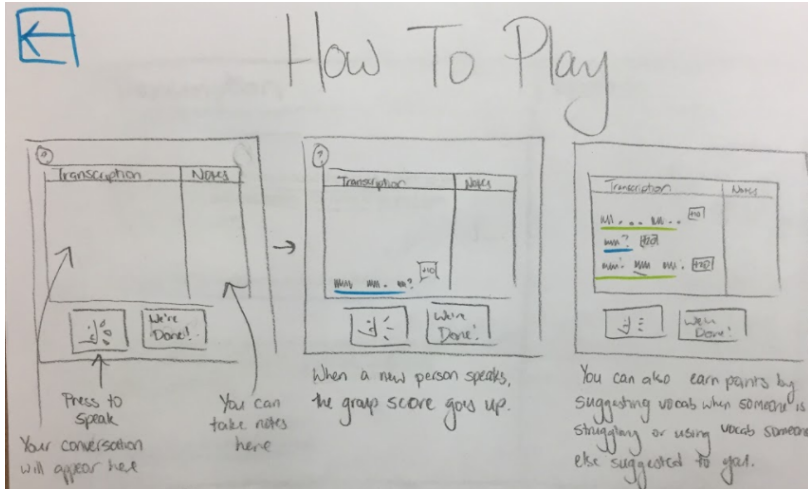
Results from second usability test

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|  |   | <p>Confusion On Listening Button [Severity 2]</p> <p>The participant found it difficult to recognize the listening button. Initially, the listening button is used when another user takes a turn to speak. However, the use of listening button makes the participant think that he needed to make an action in order to listen to the conversation. Changing the theme of the listening button into gray will let the user understand the speaking button is disabled and it's their turn to listen. We've also added contrast to the other buttons on the screen - the more colorful buttons can be pressed, and the grey indicates a lack / inability to perform an action (pressing the button in this case).</p> |
|  |  | <p>Score/Goal Usage [Severity 3]</p> <p>The participant questioned the purpose of using Goal/Score in the project. As discussed in the quiz section, the purpose of this goal is to evaluate how well family members understand each other, as well as act as a self-assessment of comfort in</p> |

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| | | <p>expressing family-related issues. Therefore, scores are updated based on the contribution of the whole family, since the game is collaborative. However, the original design shows the score in a more individual-intended screen (the calendar that shows up when wanting to review a conversation). Thus, we moved the goal section to the login page so each family member will be able to access and update the goal consistently / with other family members more often.</p> |
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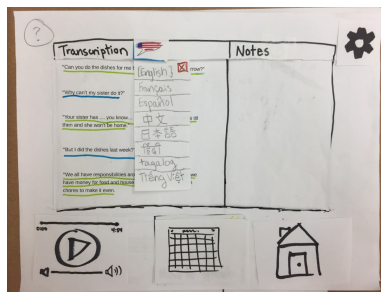
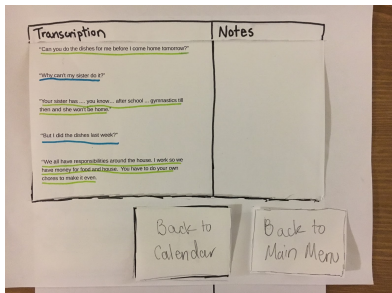
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| <p>[N/A] =></p>  <p>The image shows a hand-drawn sketch of a character named Buddy. Buddy has a square head with a simple face, a long neck, and a rounded body. To the right of the sketch is a list of features:</p> <ul style="list-style-type: none"> MEET BUDDY: your personal assistant! Buddy can answer your questions during gameplay. Buddy can also translate words when prompted "Hey Buddy..." Buddy will write down your conversation and record it so you can play it back later. | <p>Confusion on Buddy purpose [severity 3]</p> <p>We were not clear in introducing Buddy in our prototype. As the previous usability tests, we had to verbally introduce the use of Buddy at the beginning of the test. In the new design, we implemented a new feature where a user will be able to get help by asking Buddy simple questions. Since Buddy is a smart home speaker, it will be able to answer basic questions. This is also made clearer in our updated 'How to play' page, where Buddy explains some of his own uses.</p> |
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[N/A] =>



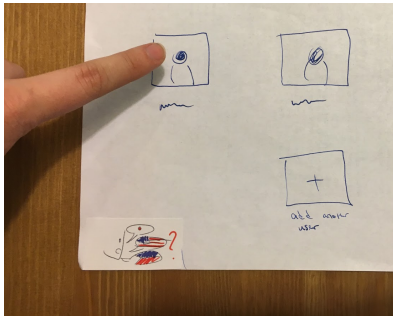

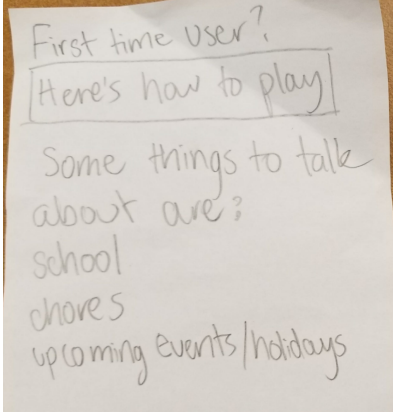
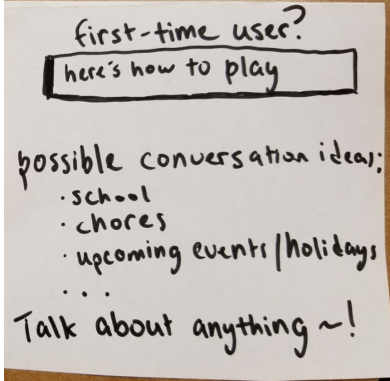
Unaware of Score / what updated values represent [severity 2]

During an active conversation, the tester only noticed the score after several updates. The tester also had questions about what each of the values represented and why certain point values were achieved. Our fix for this was to introduce a more direct information page that would explain how to play the game as well as give a tour of our interface. New users will be shown this page. Returning users can review this info by clicking on the help/information button on the conversation screen.



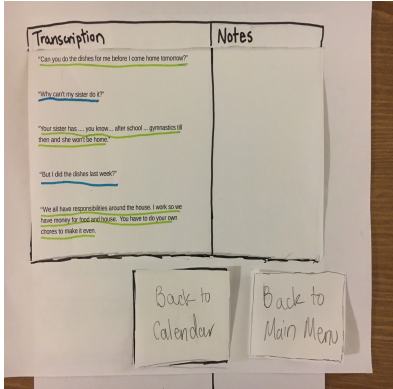
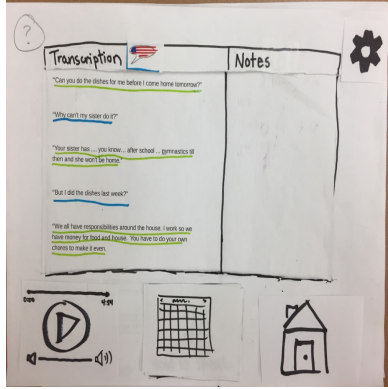
Desire to review the conversation in a different language [severity 2]

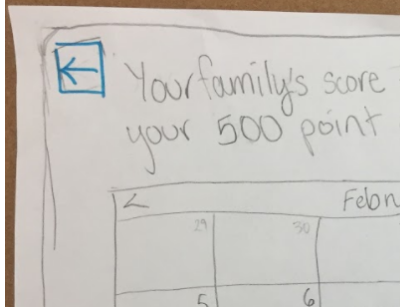
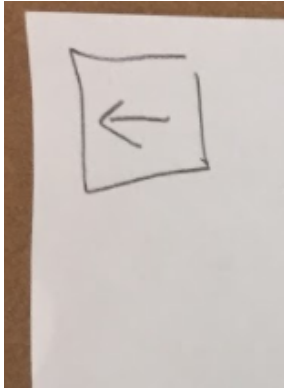
The purpose of our project is to help users remove the language barrier and enhance the relationship between family members. Therefore, the user mentioned how to review the conversation in another language in order to learn new vocabulary from their speaking partners. For that reason, we have added a new button to let the user change to the desired

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| | | <p>language so they can achieve this particular goal.</p> |
|  |  | <p>Confusion on where to change language [severity 4]</p> <p>Changing the language of the application is a necessity as well as imperative. Any delay in changing languages can make it difficult for users to figure out how to use the application and keep track of the process. As a result, we have added a cog/setting button in every section to address this issue. Thus, users will be able to change to their desired language at any time.</p> |
|  |  | <p>Suggested topics uncertainty [severity 4]</p> <p>The tester also displayed confusion about whether the suggested possible topics were required and generally unconfident about how to start the game. At first, the participant thought that all the suggested topics from the paper prototype are clickable, and they needed to click to start the conversation. Therefore, we redesigned the suggestion page. We designed a button for first-time users to get help on</p> |

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| | | starting a game. We made the suggested topics not clickable by displaying it in bullet points to minimize confusions from the users. |
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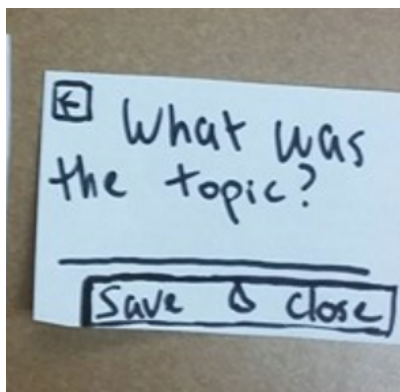
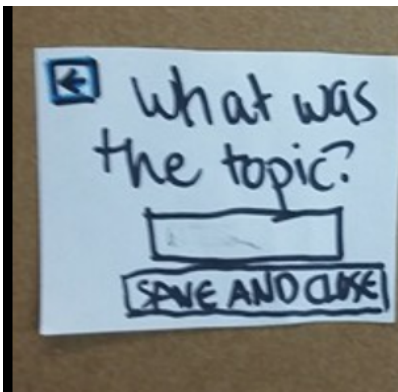
Results from third usability test

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| <p>[N/A] =></p> | <p>[N/A] =></p> | <p>Wanted to speak rather than write responses [severity 3]</p> <p>This tester (like our first tester) expressed the desire to interact with our design verbally and try and fill out some of the naming/saving interactions by speaking responses rather than writing/typing them out. Since this is a natural want and extension from our voice system, we've included this in the functionality going forward: the user can also just reply their answers and Buddy will record them just as if they typed it out.</p> |
|  |  | <p>Wanted to listen to transcript [severity 3]</p> <p>We forgot to add functionality for users to listen to the recorded conversation. This is a useful and important part of reviewing a conversation, so the feature has been added in a standard format for audio/video playback (volume, current time, play/pause). This is presented when the user is viewing a specific conversation page.</p> |



Slow to navigate/ find exit and back buttons [severity 3]

The nature of the prototype was pretty low fidelity, this user's slowness to go back pages indicated we could make the back buttons more visible and afford pressing more. We've added more bright color to these buttons, but also other places to let users know what things are more clickable.



Confused on how to write in text (expected keyboard) [severity 4]

When the participant saw our rectangular text field for inputting things like the conversation topic or the new target score goal, the participant expected a keyboard to pop up from below. This is the normal convention for phones/tablets when you select a text field. To get users to use our touch interface a little bit more and expect them to write it out instead, we changed the box into a line, so it looks more like a paper form where you just write on top of a line to fill out information.