

Assignment 3 - Gaining Empathy

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Interviews:

I conducted my interviews over the phone to maintain social distance guidelines. I sourced my interviewees through various means. One was sourcing through a family member contact first. My family member works closely with charity businesses, and I asked them to provide me with some contact details of teachers that they've worked with before. This family member was a key informant as a field guide. They work closely with many different schools across many different income brackets and so they had valuable contacts in all sectors. I then asked a friend to put me in contact with their tutoring company so that I can interview a tutor about this matter. This is a snowball example as I knew one tutor already and I asked them to give me access to more tutors that I could ask questions to. Finally, I used social media and wrote a forum post on a South African forum site saying that I was looking for teachers to interview. I then interviewed a person that contacted me. This is an example of a convenience sample as I chose to interview whichever person that was willing to that met the interviewee criteria

Below I have paraphrased the answers that each interviewee gave to the questions. I took notes on their answers during the interview and tried to record the interview. Unfortunately, the recording app I used didn't record their voices in the call as well.

Interview 1:

1. Tell me about your experiences teaching your children how to read a clock.

2.

The kids struggle at first to grasp concepts that are unfamiliar to them. I often found myself having to relate the time to specific activities to make them associate the symbols of the clock with them.

3. Do you ever use your phone or another device as a teaching aid?

No, I haven't really used digital tools before. When I used to teach, these tools were not so readily available and so books and drawings were the preferred materials. Even when I've taught in recent years, I did not use digital tools as I'm not so familiar with them so it would be hard for me to use them effectively.

4. How do you feel about the idea of a digital tool to support learning to tell time? Why?

I think it is a great idea to have. These sorts of devices are now part of modern-day life and so using them to teach should be a natural step. It would also help children to be able to use digital tools better in the future, which is so important to so many jobs and learning experiences nowadays.

5. What might be some good ways to approach this?

Associating the times with various activities seems to work well for me. Like breakfast at 7 am lunch at 1 pm and dinner at 6 pm. It seems to be easier for the kids to make those associations with time and the things that they already know. So maybe giving the kids tasks where they match time with activities and then clockface with those activities so that the kids can make that visual and physical connection between the time and what it represents.

6. Are there any constraints or wishes we should think about when designing a solution?

The tool should have many different languages. Especially in South Africa, there are so many different cultures and languages across our diverse country. It is important to be inclusive of that and so as many language options as possible need to be accommodated. You should also consider other accessibility issues such as ways to help deaf or blind children use the app. Children also struggle with instructions sometimes so clear and simple commands are essential to keep them focused on the task.

7. What features would you want to see? Why?

I think the app would be better suited to teaching and not testing and so some features to help the students learn better and quicker would be nice. Maybe an ask for assistance button would alert the teacher that the student requires some help. Possibly voice command tools so that kids are not able to type or spell well may use the app easier. Also, make it fun, the children should feel like they want to use the app and to learn from it.

Interview 2

1. Tell me about your experiences teaching your children how to read a clock.

I myself sometimes find it hard to read analogue clocks and so it is quite a difficult experience. The first thing I noticed that they struggled with is the idea that time is sort of based around 15-minute groups and teaching them how to recognise those groups of 15. They seem to really struggle with the parts in between those intervals as well.

2. Do you ever use your phone or another device as a teaching aid?

Yes, I do all the time. The most common things that I use are YouTube for looking up tutorials on lots of things and google translate for helping them with language homework. The kids I teach really like it when I use video guides for teaching and like it when I use digital tools to supplement their learning. It also helps as a teacher to manage the workload that has been given to them.

3. How do you feel about the idea of a digital tool to support learning to tell time? Why?

I think it's a very clever idea. The help that can be provided through digital means is very beneficial in modern society. We live in a very digital world these days and a digital tool would also be beneficial to teach kids how to use devices. Computer literacy is an important skill in many jobs today and it would be a good tool to equip children with to use right. Especially in underprivileged communities where they may not be a lot of technology available to them to learn how to use, this may help them develop the skills to find more ways to learn for themselves.

4. What might be some good ways to approach this?

I think one good idea would be to use songs in the app to make it easier for kids to learn. Using songs is a catchy way of giving the kids something to memorise. I think it might also be a cute idea to allow the kids to make a dance to the song by filming it with the

camera on their mobile devices. The kids could then upload these videos to the app so that other members of their class can view them and interact with each other. Maybe the app can then put all the videos together and the class can view all their dances together.

5. Are there any constraints or wishes we should think about when designing a solution?

Accessibility is a big thing to consider, it should be as accessible as possible so that a diverse variety of people can use it effectively. Maybe think about different options for children who can't type very well or have dexterity problems. Also consider language options, the more the better.

6. What features would you want to see? Why?

The ability to make and share tests would be good. Maybe have mastery scores that can keep the children motivated to complete and give them a tangible goal to try to achieve. As I said before as well, the ability to record and upload videos of the kids' doing dances or movements of different clock positions could be a cool way of getting them to engage more with the content.

Interview 3

1. Tell me about your experiences teaching your children how to read a clock.

When I was teaching kids how to tell time, we used worksheets to do so. We gave the kids pages with blank clocks on them and a time underneath that they needed to draw the hands on the clock or the other way around where they would have to write the time based on the clock. I found that it was hard for the kids to understand that time works around 60 seconds and fractions of that. This was especially hard when teaching kids how to tell how much time has passed between times. We had to then teach them as well how to do the math for these

2. Do you ever use your phone or another device as a teaching aid?

Yes. I often use YouTube to try to help kids understand topics. They like the videos and sometimes it's easier to let someone else explain it in different terms than yours. One thing I showed them when it came to time was showing them a video of a clock changing as time went on but at a faster speed so that the kids can see how the hands relate to the different hours. Using projectors as a way to show visual aids is a nice way to show the kids pictures.

3. How do you feel about the idea of a digital tool to support learning to tell time? Why?

I think that it is a great idea, the world is becoming very digitised, and it is our responsibility to equip the next generation with the skills necessary for technology.

4. What might be some good ways to approach this?

To help make some of the links between physical and technology, you can maybe set tasks like writing something out on paper and then using digital to present it to the class. The clock tool can maybe be used similarly by giving them physical tasks to do as well or using a touchscreen make them physical draw and write things

5. Are there any constraints or wishes we should think about when designing a solution?

Not all children in South Africa have equal access to all these digital opportunities and so it is important to keep that in mind. Maybe making the app flexible across many different types of devices could be good, so that I could be used on a projector or just a laptop that maybe the school has. The app could also maybe include group work tasks so that many kids can use the device at once when there's not much technology available.

6. What features would you want to see? Why?

The human element is still important to consider when teaching and so it might be a good idea to include pictures and characters of people in the app. Maybe they are the ones holding the clocks or helping point out how to do the task. This could be a good place for representation, and it could show the children of South Africa that there are many different types of people that live together in the country. Representation is important and especially impactful to young kids.

Affinity Sort:

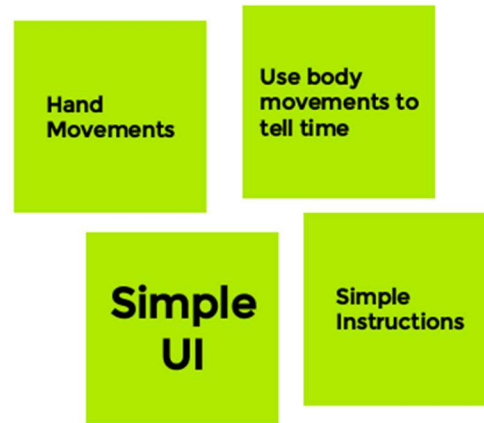
Accessibility



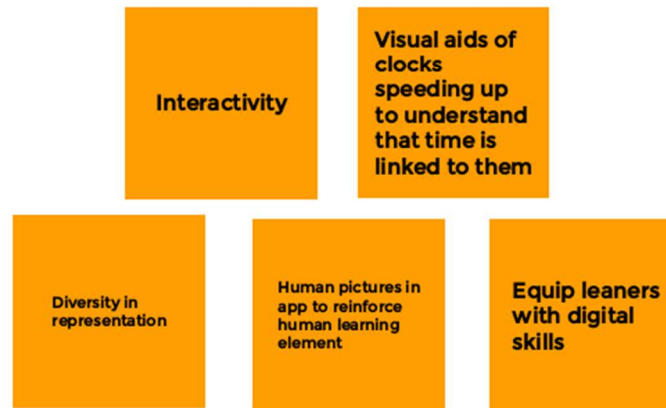
Purpose



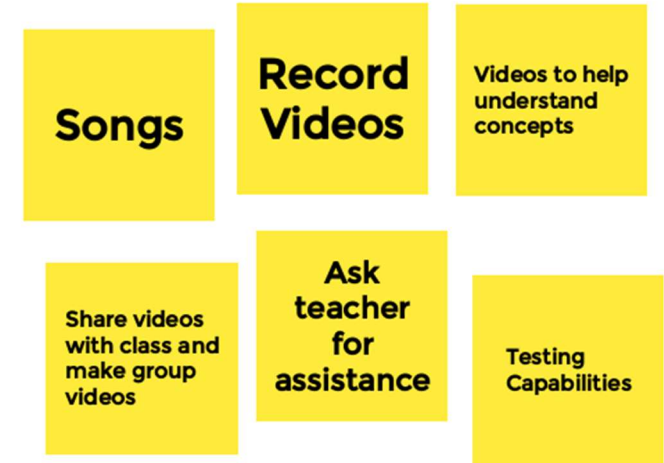
Child Friendly



Human Element



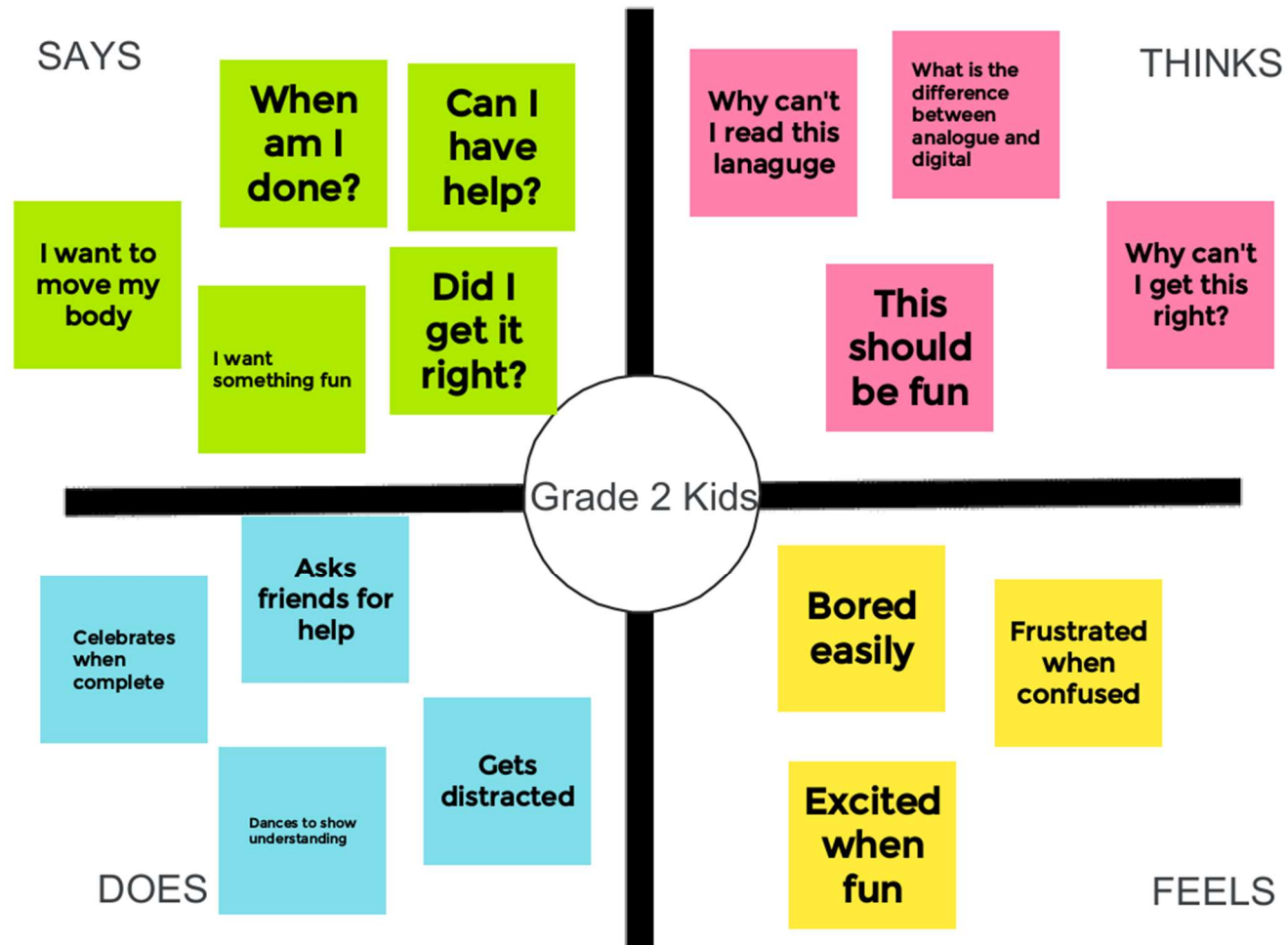
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Issues



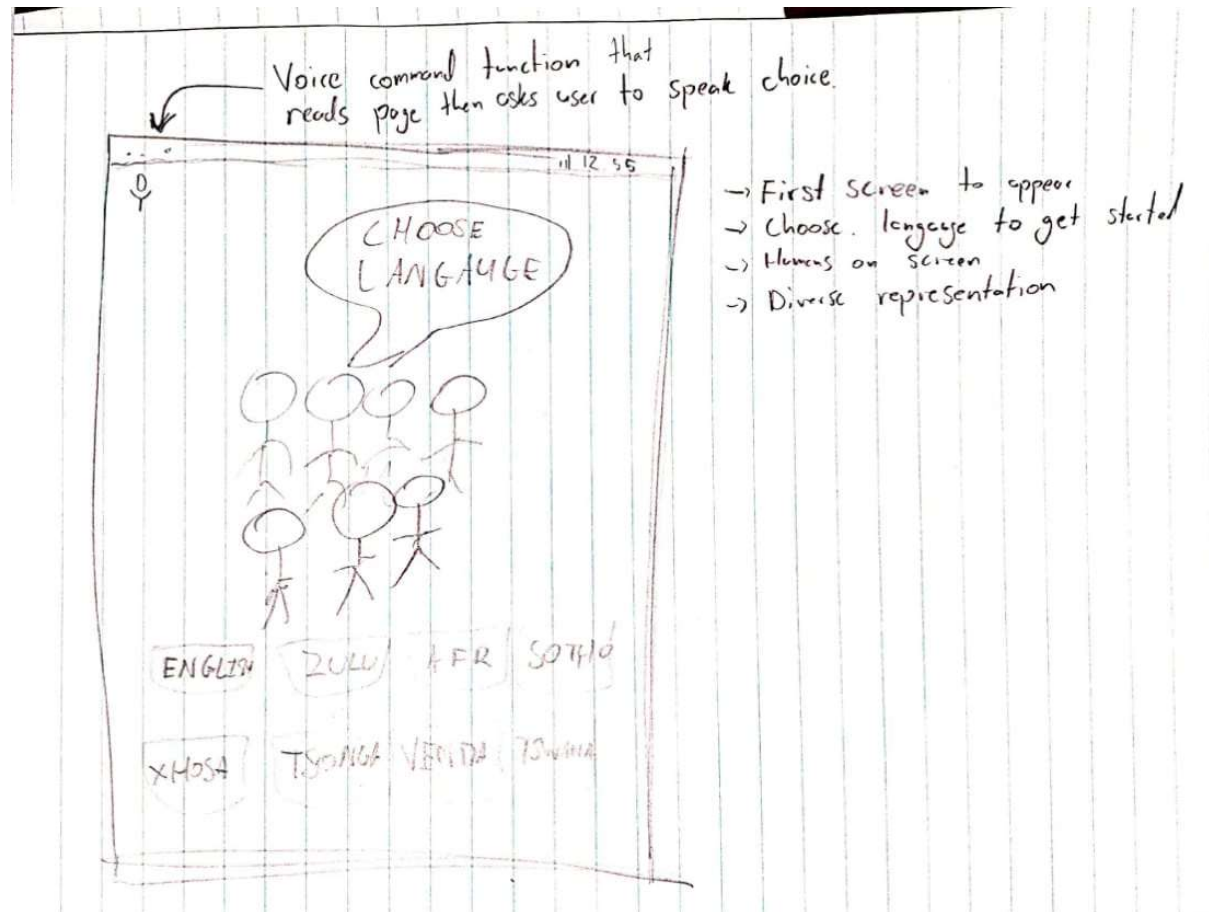
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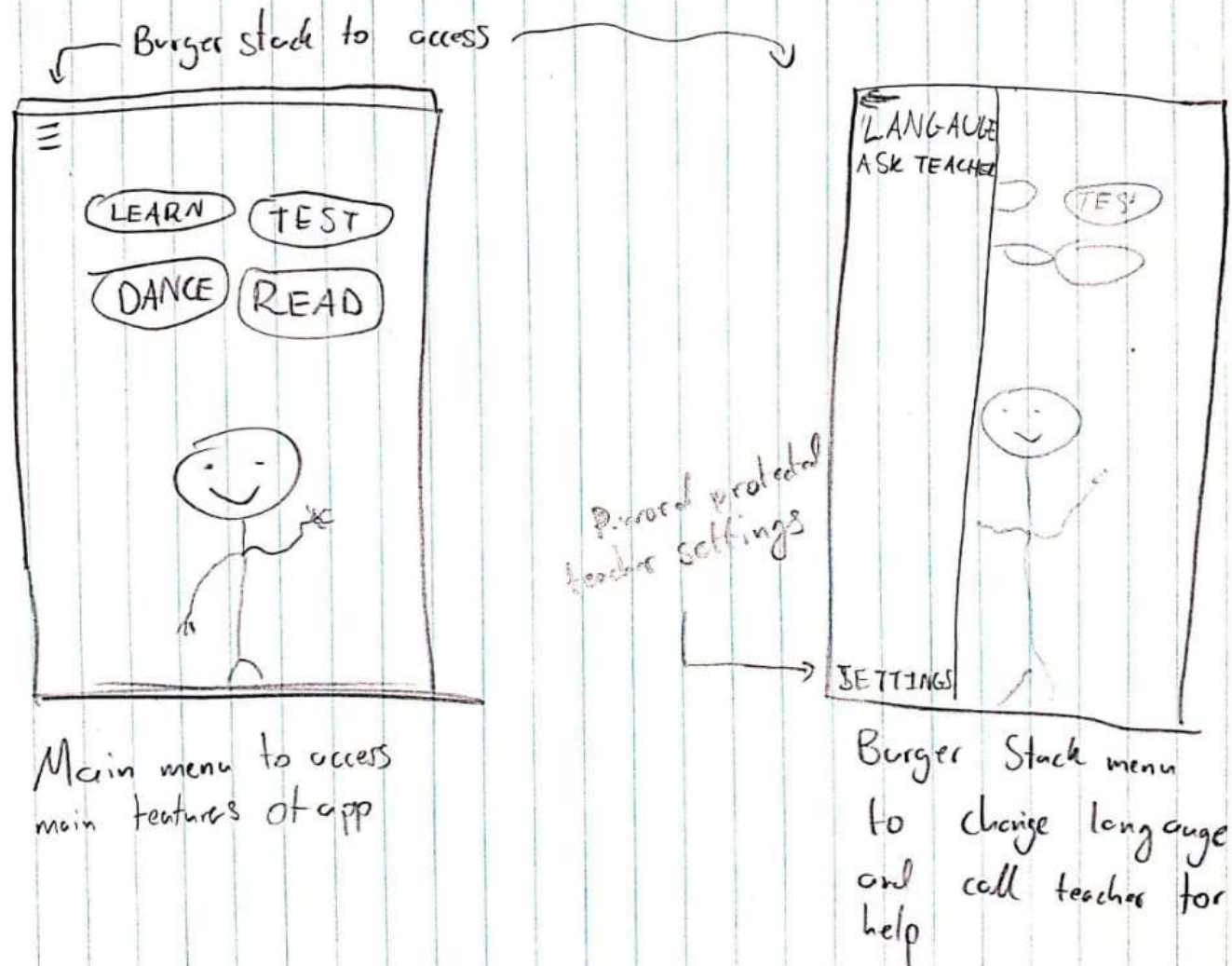
Ideate:

Parents/learners need a way to learn and test time reading content in a fun and interactive way because digital tools provide a quicker more creative teaching tool that also teaches other skills simultaneously.

Sketch 1:



Sketch 2:



Sketch 3:



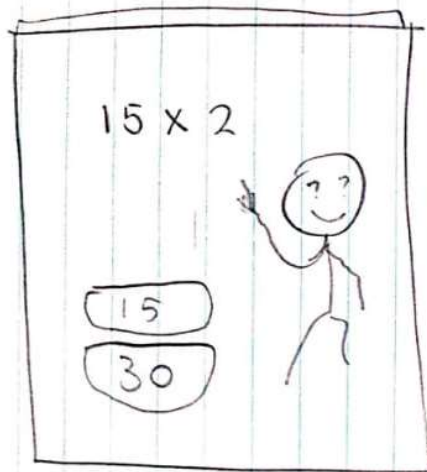
Example of a
type of test

Sketch 4:



Confirmation Screen
when quitting test

Sketch 5:



Type of math
test involving
human element
as well

Sketch 6:



Congratulations
Screen