

# Interview Report

## Improving Long-Distance Communication Experience

Irem Gokce Yildirim, Yiqing Ling, Bingzhe Li

In this report, the results of the interview that we conducted as a supplement user research method after doing user observation for the project are discussed and some insights are drawn from the data. In this research study, the goal is to identify the requirements of a new product design which is intended to improve long distance communication experience between international students and their distant families.

## Design Challenge

The design challenge is how we can better utilize AR technology to improve long distance communication experience between international students and their families.

## Methods

### Sample

We interviewed 4 international students individually. The interviewees are the same local person as who we observed for our user observation project. The interviewees are roommates and schoolmates. The sampling method we used for the interview is convenient and purposive sampling, because the selected interviewees are all international students and have a regular video chatting routines with their distant families which fits our target people profile. Moreover, we want to conduct the interview with the same people from the observation session we applied. The reason is we want to understand their needs in detail that we cannot observe during their chatting. In this way, we can easily identify the problems they encountered during the video chatting right after the observation session. It is also easy for interviewees to recall their communication experience right after the video chat session.

### Interview questions

The interview is semi-structured, including 16 questions. We came up with these questions by reflecting our own past experience first. We each talked about our own experience and then came up with questions focusing on what we want to know about our target users.

# Results


In the following table, interview questions and participants answers are summarized.

#	Group	Questions	Joking Jack	Newsy Nancy	Casual Carl	Playful Icy
1	A	When was the last time you talked to your family?	-WhatsApp (one week ago) -Video chat (one month ago)	Video chat:3 days ago; Text: today	3 days ago	Last week (6 days ago)
2	B	Do you feel time difference is a big problem in terms of long-distance communicating with your families?	Yes	Sometimes. 9am-6pm is busy, hard to meet.	Not a very big problem.	Sometimes yes, but my parents wake up ealy, so it's okay.
2a		Have you or your family member(s) ever felt annoyed due to time limitation (caused by time difference) to have a video chat?	Yes, especially due to the conflicting on working/study hours. He cannot video chat during the day,but when he is available, his family already slept.	No	Once I've already went to sleep, my mom called me.	Yes, sometimes though they wake up early, but they need to go to work. So we don't have much time to skype(in that case).
3		Could you share some long distance communication experience/ stories related to time difference?	Hard to catch birthday greetings	It was hard for her especially her husband was in the home country. He needed to wait until late hours to video chat with her.	10:30am was a good time for me to do video chatting, but my parents was tired and sleepy since it was 10:30pm in my homecountry.	Sometimes I have to hang up because I have to go to class.And people might be in different mood.(morning vs evening)
4		How do you decide on the time to video chat with your family member(s)?	Weekends works for both. Using WhatsApp (messagging app) during the weekdays	According to availability for both sides.Her family knows her class schedule to set the time.	It depends. Usually in the evening or in the morning. When we are all awake.	Common free time.
5		Is there any specific setting required before starting the video call?	Where to sit (context), dressing	Only finding a relaxing space (home and office are the best)	Must at home and have wifi connected.	Not really, I have the best mobile internet plan, so do they.
6	C	Have you ever complained about shaking device?	No, but I'm already iPad with a hard stand.	Yes. Already using iPad, hands-free. Her dad hates her using phone since she shakes her too much.	Yes	No, But hands-free device might be better.

6a		Would you prefer hands-free, stabilized device as a solution?	Already using iPad with a hard stand.	Yes, she already using iPad, hands-free.	Yes	Yes
7	D	Have you ever felt annoyed or been impatient because of a distraction while video chatting?	He always call when he is available. But distant person had guest once So he had to end the call.	Usually happens due to office space.	Yes. When I have to do some other things.	No, I often video chat alone in my room.
8	E	Do you think it is difficult to adjust camera angle while video chatting?	No. using iPad	Using PC so no problem.	Yes, sometimes I need to charge my phone, so it is hard to place it somewhere.	Yes, me and my mother are good at it. But my father always looks at me with his nose.
9		Uncomfortable because camera not covering all families members?	Yes. I prefer wider field of view.	No. But wider view would be good.	Yes, I need to call others to come closer to the camera.	No. Often times there are just my father and mother.
9a		Would you prefer a communication medium which automatically detect the multiple instances of people on the camera's field of view and rotate accordingly to fit in the view?	Not an automatic rotation. But prefers auto zoom out by default. Prefers a wider field of view.	Not an automatic rotation solution but wider field of view.	Yes	Yes
10	F	Have you ever disturbed by the small chat screen when sending out media files?	No. Not tried to send before.	Yes, on the phone. multi-process is stronger on the phone.	No	It's fine. Because I can get back to it(normal size screen) really quick.
11		Do you feel disturbed not being allowed to take pictures while video chatting if your family member ask you to send to him/her?	He was not a photo guy. So, he does not send/get pictures.	Yes, the two of the fron and back camera may active all the time. Due to that problem she uses different devices at the same time.	Yes. When my mom asked me to take a picture of what I was introducing to her.	Yes. Can't tale photos while skyping bothers me a lot.
12	G	Do you feel like you need more time to video chat with your family each week?	More then "more", he prefers the ability to set the time more flexibly.	No	Yes. Hopefully, once/ two days.	No, I think once/twice a week is fine.
13	H	Do you think video chat is the best way to relieve your homesick? If so, why? If not, what else?	No. Felt homesickness once in his first year, but then he decided to force him to adapt to the new environment rather	Absolutely	Yes, I can see my home, my families and my dog.	Yes, because I don't think there is another way.

			than staying in touch with family.			
14	I	Would you prefer to see your family member's body gestures as if they are nearby?	No.	If happens, why not?	Yes.	Yes
15		Would you like to hug or reach around your family member while video chatting?	No, but if it happens it should be very realistic.	Yes, especially dog or child.	Yes	Kinda awkward. But sure, it will be fun.
15a	J	Would you prefer your family member being able to send body emoticons instead of smileys so that you can see a moving body represented in a 3D environment?	No	No	Yes, that would be fun.	Yes
16	K	In which way do you think video chatting can be improved?	Wireless, connection.	Wireless connection	Maybe see their whole body in a 3D screen.	Smelling, touching, more sense.

**Table-1:** Interview Results for Long-Distance Communication Experience

**Note :**  This color represents commonality among the subject's answers for Yes/No questions. It is assumed as common if 3 or 4 over 4 people stated the same answer.

## Conclusions

### Insights about Users

1. Time difference is a unchangeable objective factor in terms of Long distance communication. Users are most likely to be disturbed by it. They all have complain for time differencen, but most of them can figure out a way to work around it, but this is still a unaviodable probelm for them (#1 in Table 2).
2. When video chatting, users tend to find a confortable place to relax, then start the video chatting process. This special location request is something that we can't help via software (#2 in Table-2).
3. There can be distracting elements in the context where video chatting is going on. Sometimes they are intended. A few users expressed some complain about it, but sometimes distraction could turn into a new topic in video chatting for them. Overall, distracting is not a big problem. And we don't think this is a prior problem when design a new product (#12 in Table-2).
4. Users tend to send media files while video chatting. And some of them expressed some complaints about when sending media files, the video chatting screen would turn smaller. This feature imporvement can be done in future versions of video chatting apps (#6 in Table-2).
5. All users agree that video chatting is the best way to relief homesickness. Because video chatting can satisify multiple needs of senses(sight, hearing etc.) at the same time, so they can feel like their families are close to them (#7 in Table-2).

## Insights about Product


1. Although video chatting provide better communication experience than text message, participants show that mesageing feature is still necessary and is more frequently used. The device should have messaging feature to schedule video chatting time (#10 in Table-2).
2. All participants show that they are somewhat annoyed by setting up the time for video chatting because of time difference. It might be good for the new device to have auto notification about the availability based on the Time zone(#1 in Table-2).
3. Statitinary design (to deal with shaking etc.), is very necessary since interview results show strong needs to be hands free during video chatting and some subjects complain about the bad experience due to device shaking(#4 in Table-2).
4. Many of the subjects prefer wider field of view for camera. So the device should have wider field of view to cover more people and environment elements during video chatting (#5 in Table-2).
5. Many of the subjscts show interests about the feature to take pictures at the same time while video chatting(#6 in Table-2)
  - a. However, most of the subjects are not annoyed about the video chatting screen getting smaller as they switch to the camera application to take some media files to send to the distant person (#13 in Table-2).
6. As many of the subjects stated that video chatting is very effective to ease homesickness, in the new design, the product may have some features like the followings(#7 in Table-2):
  - a. The device can recommend when to video chat based on the schedule and time zone of the both parties of the communication.
  - b. Based on GPS data, it can send push notifications saying“would you like to inform your parents that you are landed?” to keep the students and their parents stay in touch when they are far away from each other.
7. Half of the subjects stated that they would prefer a new communication experience where they can feel the distant person in the video chat more simulating other senses like touch (#8 in Table-2).
8. Half of the subjects expressed that it would be more immersive and fun having elements like sending body gesture emoicons to make the communication more dynamic (#11 in Table-2).
9. Poor network connection quality is the most important problem to improve the video chat communication experience for half of the subjects. Therefore, the new product may implement a sustained communication auto adjusted by the network quality. For example, if the connection is poor, the video channel could be hold for a while so that audio communication could not be interrupted as people want to hear the distant person continuously during the conversation although they cannot see them (#9 in Table-2).


Based on these insights, we prioritized the design concerns for a better the long-distance communication experience for the new product design and we created the following table based on the needs accordingly.


#	Design Concerns (based on needs)	Prioritization
1	Time difference	High
2	Comfortable space for video chatting	High
3	Easier to send media files	High
4	Stationary/stable design	High
5	Wider field of view for the chatting camera	High
6	Taking pictures at the same time	High
7	Solution for homesickness	High
8	Stimulate other senses (touch, smell)	Moderate
9	Poor network connection	Moderate
10	Messaging feature	Moderate
11	More immersive and fun interactive elements in the communication interface	Moderate
12	Distractions while video chatting	Moderate
13	Video chat screen's getting smaller when switching to other application (e.g. camera app to take picture)	Low

**Table-2: Design Concerns for New Long-Distance Communication Product**

*Note:*

 Dark red represents that the prioritization of design concern is high (based on the common answers by 3 or 4 people out of 4)

 Medium red represents the the prioritization of design concern is moderate (based on the common answers by 2 people out of 4)

 Light red represents that the prioritization of design concern is low (based on the common answers by 1 people out of 4, or none)

## Appendix

### INTERVIEW

### **Script**

*Welcome and thank you for your participation today. My name is [Investigator Name] and I am a graduate student at Michigan State University conducting this research in partial fulfillment of the requirements for the degree of Master of Arts. Thank you for letting us observe you while video chatting with your family, and this follow-up interview will take about 20 minutes and will include 16 questions regarding your long-distance communication experiences and what might affect your communication satisfaction as an international student whose family is very living far away. I would like your permission to take notes from this interview, so I may accurately document the information you convey. If at any time during the interview you wish me to discontinue noting or the interview itself, please feel free to let me know. All of your responses are confidential. Your responses will remain confidential and will be used to develop a better understanding of how you and your peers view your communication experiences and what might influence or improve it. The purpose of this study is to increase our understanding of current needs about long-distance communication and improve the communication experience.*

*Remember, your participation in this interview is completely voluntary. If at any time you need to stop, take a break, or return a page, please let me know. You may also withdraw your participation at any time without consequence. Do you have any questions or concerns before we begin? Then with your permission we will begin the interview.*

## **QUESTIONS (semi-structured)**

1. When was the last time you talked to your family? *(This question should be asked right after the observation if possible. Because, the behaviours may be linked to this period.)*
2. Do you feel time difference is a big problem in terms of long-distance communicating with your families?
  - a. Have you or your family member(s) ever felt impatient/urgent due to time limitation (caused by time difference) to have a video chat?
3. Could you share some long distance communication experience/ stories related to time difference?
4. How do you decide on the time with your family member(s) to video chat?
5. Is there any specific setting required before starting the video call?
6. Have you or your families ever complained about shaking devices while video chatting?
  - a. Would you prefer hands-free, stabilized device as a solution?

7. Have you or your families ever felt impatience while waiting you on video call due to being distracted by something else?
8. Have you or your families ever felt it was difficult to adjust the camera angle while video chatting? (*e.g tilting up the camera angle that's coming from beneath person's chin*)
9. Have you ever felt uncomfortable due to camera's field of view not covering all the family members on the other side of the video chat?
  - a. Would you prefer a communication medium which automatically detect the multiple instances of people on the camera's field of view and rotate accordingly to fit in the view?
10. Have you ever felt disturbed when the video chat screen gets smaller while sending media files to the counterparty during your conversation?
11. Do you feel disturbed not being allowed to take pictures while video chatting if your family member ask you to send to him/her?
12. Do you feel like you need more time to video chat with your family each week?
13. Do you think video chat is the best way to relieve your homesick? If so, why? If not, what else?
14. Would you prefer to see your family member's body gestures as if they are nearby?
15. Would you like to hug or reach around your family member while video chatting?
  - a. Would you prefer your family member being able to send body emoticons instead of smileys so that you can see a moving body represented in a 3D environment?
16. In which way do you think video chatting can be improved?

***We are grateful for your participation. We are listening and are committed to taking any action based on the feedback you give us. Thank you for your participation.***

***\*\*\* If participant wishes to discontinue study, ask if they would be willing to share why.***