

Pre-study questionnaire

- Demographics

1)

Age (you must be aged 18 or older to participate in this study):

2)

How do you describe your gender:

- ☐ Male
- ☐ Female
- ☐ None of the above
- ☐ Prefer not to say

3)

What is your profession and industry, or field of activity?

- Some questions about previous experience

4)

How often, if at all, have you listened to spatial audio (this may include sound VR and 3D videogames)?

- ☐ I don't know what it is
- ☐ Never
- ☐ Less than 5 times
- ☐ A few times a year
- ☐ A few times in the last month
- ☐ Often

5)

How often, if at all, have you listened to binaural audio?

- ☐ I don't know what it is
- ☐ Never
- ☐ Less than 5 times
- ☐ A few times a year
- ☐ A few times in the last month
- ☐ Often

6)

How often, if at all, have you experienced Audio Augmented Reality?

- ☐ I don't know what it is
- ☐ Never
- ☐ Less than 5 times
- ☐ A few times a year
- ☐ A few times in the last month
- ☐ Often

6.1)

If yes, what device have you used for this experience (eg. Headphones, VR Headset, AR Headset, Mobile phones, Bose Frames)?

6.2)

If yes, can you give examples of the content?

7)

Have you ever visited an immersive theatre play?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

7.1)

If yes, what was it / were they about?

7.2)

If yes, what types of media did they use?

8)

Have you ever participated in a group performance (eg. theatre, dance, stand-up comedy)?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

8.1)

If yes, what were they about?

9)

Do you have a smartphone?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

9.1)

If yes, when do you use it? (You can select as many options as you like)

- ☐ At home
- ☐ At work / school
- ☐ When travelling / commuting
- ☐ When I'm with friends
- ☐ When I'm waiting on something
- ☐ When engaged in other activities (eg. watching TV)

10)

Do you have any social media accounts?

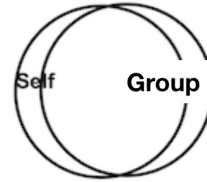
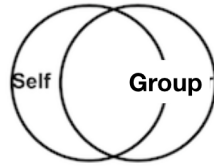
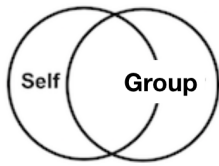
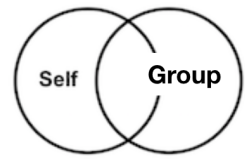
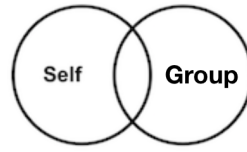
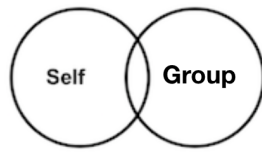
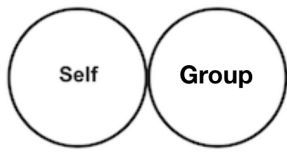
- ☐ Yes
- ☐ No
- ☐ Prefer not to say

10.1)

If yes, what do you use them for?

11)

This last question is about how connected you feel to the other participants of this study, who are in this room with you. Which picture best describes your relationship with the participant group?



Post-task questionnaire

Game 1 - Circles and Crosses

1)

"It was easy for me to execute the instructed movements."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

2)

Complete the following sentence with an adjective:

"I felt _____ during this task."

Game 2 - Mirroring

3)

"I felt comfortable synchronising my movements with another person."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

3.1)

Why?

4)

"Me and my partner had a good time together during that exercise."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

5)

Was there anything that was distracting you from performing the tasks you were given? If so, what?

6)

Complete the following sentence with an adjective:

"I felt _____ during this task."

Game 3 - Notifications

7)

"It was clear to hear which direction the notification sound was coming from."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

8)

"It was easy to find the source of the notification sound by turning my head."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

9)

"I felt satisfied when turning a notification sound off."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

9.1)

Why?

10)

How stressed were you during this task?

Not at all - not really - somewhat - totally

10.1)

Why?

Game 4 - Tapping for likes

11)

"I felt comfortable with other participants touching my frames."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

11.1)

Why?

12)

"It was exciting for me to receive likes."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

12.1)

Why?

13)

Complete the following sentence with an adjective:

"I felt _____ during this task."

Post-Study Questionnaire

1)

"I'm glad I had this experience."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

1.1)

Why?

2)

"I would like to play more similar multiplayer games."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

3)

"I would recommend this experience to a friend."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

4)

What did you like about this experience?

5)

What did you dislike about this experience?

6)

Which of the four chapters did you find most engaging?

- ☐ 1) Circles and Crosses
- ☐ 2) Mirroring
- ☐ 3) Notifications
- ☐ 4) Tapping for likes

7)

"I followed all the instructions I was given by the narrator, Pi."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

7.1)

Why?

8)

"I questioned the authority of the narrator, Pi."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

8.1)
Why?

9)
“I felt self conscious during the experience.”

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

9.1)
Why?

10)
“Somehow I felt that the virtual world surrounded me.”

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

11)
How aware were you of the real world surrounding while navigating in the augmented world? (i.e. sounds, room temperature, other people, etc.)?

Extremely aware - Moderately aware - Not aware at all

11.1)
Why did you choose this answer?

12)
“I was not aware of my real environment.”

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

13)
“I still paid attention to the real environment.”

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

14)
“I was completely captivated by the augmented world.”

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

15)
How real did the augmented world seem to you?

Completely real - Moderately real - Not real at all

15.1)
Why?

16)

How much did your experience in the virtual environment seem consistent with your real world experience?

Not consistent - Moderately consistent - Very consistent

16.1)

Why?

17)

How hurried or rushed was the pace of this experience?

Too slow - Just about right - Too fast paced

17.1)

Why? What would you change in terms of pace?

18)

How well did the interactions with the Bose Frames work (double tapping the side, nodding, shaking)?

Not at all - not really - somewhat - totally

18.1)

Why?

19)

"The interactions with the frames were well explained."

Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

19.1)

What could have been explained better?

20)

"The interactions with the other participants were well explained."

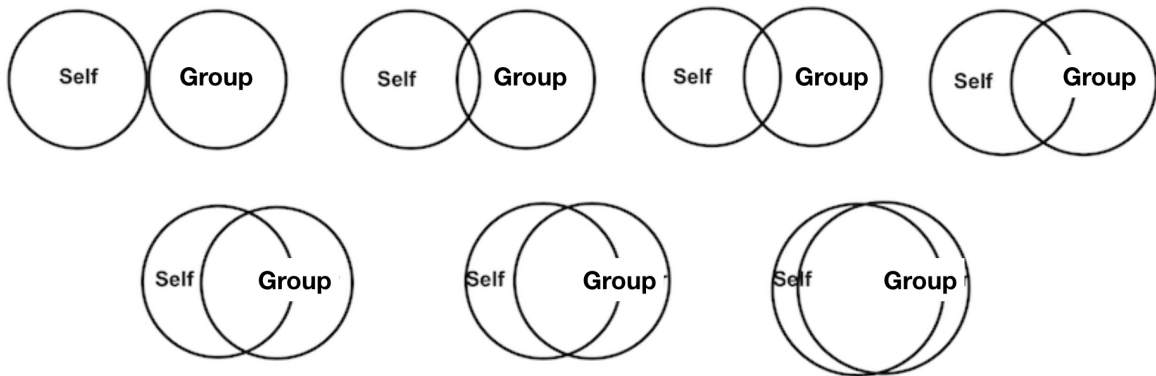
Don't agree at all - Somewhat disagree - Somewhat agree - Totally agree

20.1)

What could have been explained better?

21)

How connected you feel to the other participants of this study after the experience? Which picture best describes your relationship with the participant group now?



Observation note-taking sheet

- Circles and Crosses

1)

Success:

1.1)

Participant is able to execute the instructed gestures with both hands at the same time

☐ Yes

☐ No

1.2)

Participant is able to execute the instructed gestures with hand and foot at the same time

☐ Yes

☐ No

1.3)

Participant understands the instructions and tries their best to complete the instructions

☐ Yes

☐ No

1.4)

Participant does not know what to do and stops Y/N

☐ Yes

☐ No

2)

Group behaviour:

2.1)

Do people talk?

☐ Yes

☐ No

2.2)

What do people say (words, utterances):

2.3)

How do people communicate non-verbally (gaze, gestures):

3)

Other Observations:

- Mirroring

1)

Mirroring pairs:

2)

Success:

2.1)

One participant mirrors the other

☐ Yes

☐ No

2.2)

They swap roles

☐ Yes

☐ No

2.3)

Simultaneous movements

☐ Yes

☐ No

2.4)

What types of movements do they make (eg. slow, fast, dancing, exercise...)?

2.5)

Do they follow the prompts to talk to each other:

2.5.1)

Introduction by username

☐ Yes

☐ No

2.5.2)

Island

☐ Yes

☐ No

2.5.3)

Things they have in common / different

☐ Yes

☐ No

2.5.4)

Like about your partner

☐ Yes

☐ No

2.5.5)

Ask a question

☐ Yes

☐ No

2.5.6)

As a child

☐ Yes

☐ No

2.5.7)

As a teenager

☐ Yes

☐ No

2.5.8)

Feeling

☐ Yes

☐ No

3)

What do they say other than what is prompted? (words, utterances)

4)

Do participants seem to be distracted by something? How is that visible?

5)

How do they communicate about what they are asked to do?

- Notification

1)

Success:

1.1)

Do all participants manage to find sounds and turn them off?

☐ Yes

☐ No

1.2)

What happens?

2)

Group behaviour:

2.1)

How do participants communicate?

2.2)

Do they talk to each other? What do they say?

2.3)

Do participants compete against each other? How do they show it?

3)

Do participants seem stressed? How do they show it?

4)

Other observations:

- **Tapping for likes**

1)

Group behaviour:

1.1)

How do people communicate to each other?

1.2)

Do people seem uncomfortable touching each other's frames? How?

1.3)

Does the group have fun? How do they show it?

2)

Do participants encounter any problems? Which?

3)

Are participants somehow confused?

4)

Excluded participant:

4.1)

How does the person who is excluded react?

4.2)

How does the group react when one person disengages?

5)

How does the experience end?

Group Discussion Guide

What context do you see such an experience set in, if at all?

Could you think of any other multiplayer experiences you'd like to see, using this technology?

Do you find audio-only experiences interesting? Would you like to do more?

Did you notice the spatialized sound? Do you think it enhanced the experience in any way?

How did you feel about getting different information to other participants?

What did you think about the story?

Did this experience make you reflect on your use of digital devices and social media?

How did you feel about the experience overall?