Deliverable F: Prototype I and Customer Feedback

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1. Introduction

The first prototype will be an opportunity to receive feedback from potential users about the storyline and empathy communication within our project. The prototype is a physical prototype that specifically focuses on the storyline and empathy communication through character dialogue. The prototype does not focus on the Unity assets themselves but instead puts focus on the story that our group wishes to tell through the interactive game. The prototype will test scenario communication, point of view flip, storyline, and overall empathy communication through a user questionnaire that will be sent out to university-aged students at the University of Ottawa. Through this questionnaire potential users will rate the prototype and this information will be used to further improve the storyline and empathy communication of the game. Through client feedback, such as simplification of a few parts of the game, it was possible to narrow down the prototype to a simpler version that will eventually be implemented into the game. Through user and client feedback our group hopes to gain important knowledge of the effectiveness of our empathy communication with this prototype.

2. Client Feedback

Once the meeting was over the client had much to say. She was very impressed with our ambitions. She told us that even though she loves our ideas and enthusiasm she wants us to focus more on one concept rather than have lots of ideas and not have enough time to finish it. She advised us to take off our main menu and keep it simple rather than have too much. She also advised us to focus on English as our main language and we can add a second language (French) if we have enough time to do so. We should also focus on one scenario rather than having multiple different scenarios and make sure it is of high quality. Overall, our client was very excited to see our project and was looking forward to our next meeting.

3. Analysis of Critical Components

This prototype would be directed toward specific critical components such as scenario communication, test point of view flipping, and verifying script effectiveness to derive empathy. Scenario communication is one of the major components of this prototype as it would be how we would communicate our ideas to the user about what is going on and what our prototype is all about. To fully experience the prototype, an explicit scenario must be created. Also, the ability for the point of view to be switched is a key to this prototype, since as we try to define two points of view, the transition from one point to another must be precise or noticeable so that the user will know exactly which idea is presented in each scenario.
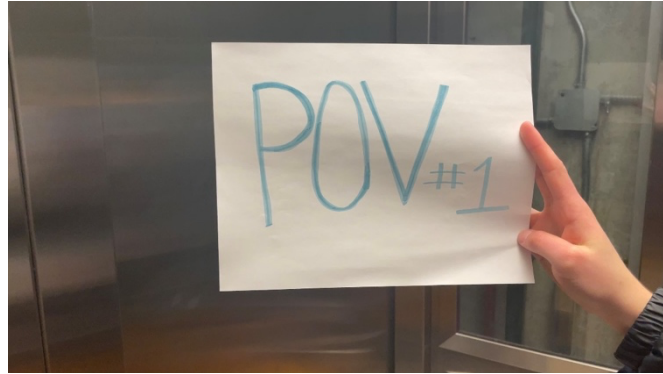
Fig1; Shows subsystem 2, the point where the first point of view is presented
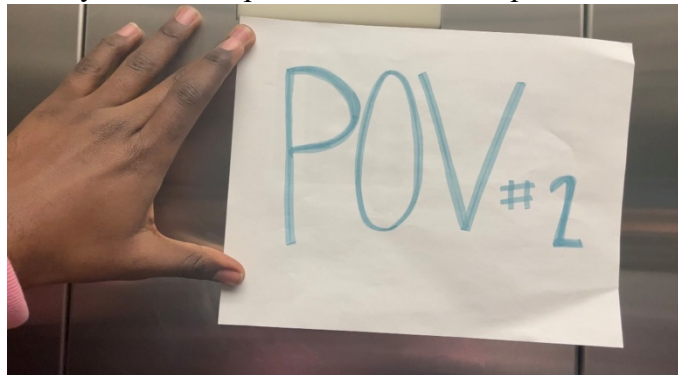

Fig 2; Shows subsystem 4, the point where the second point of view begins
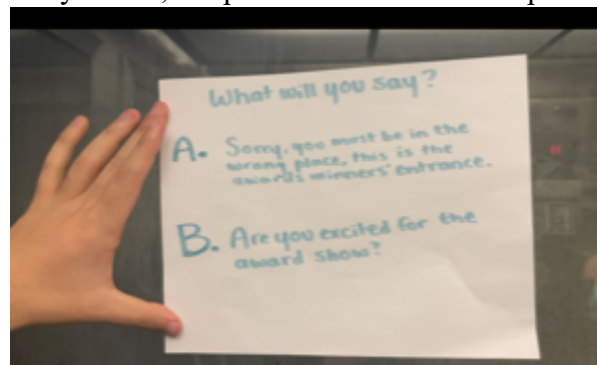

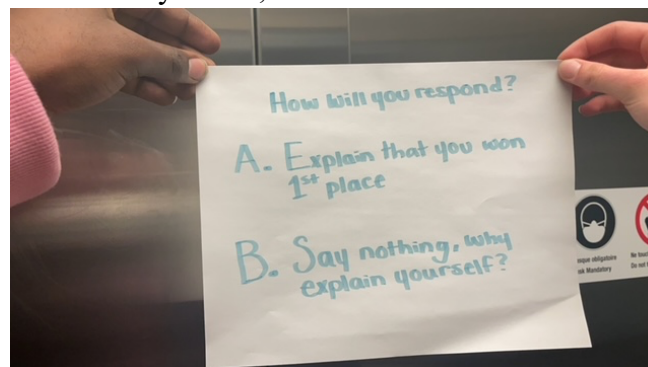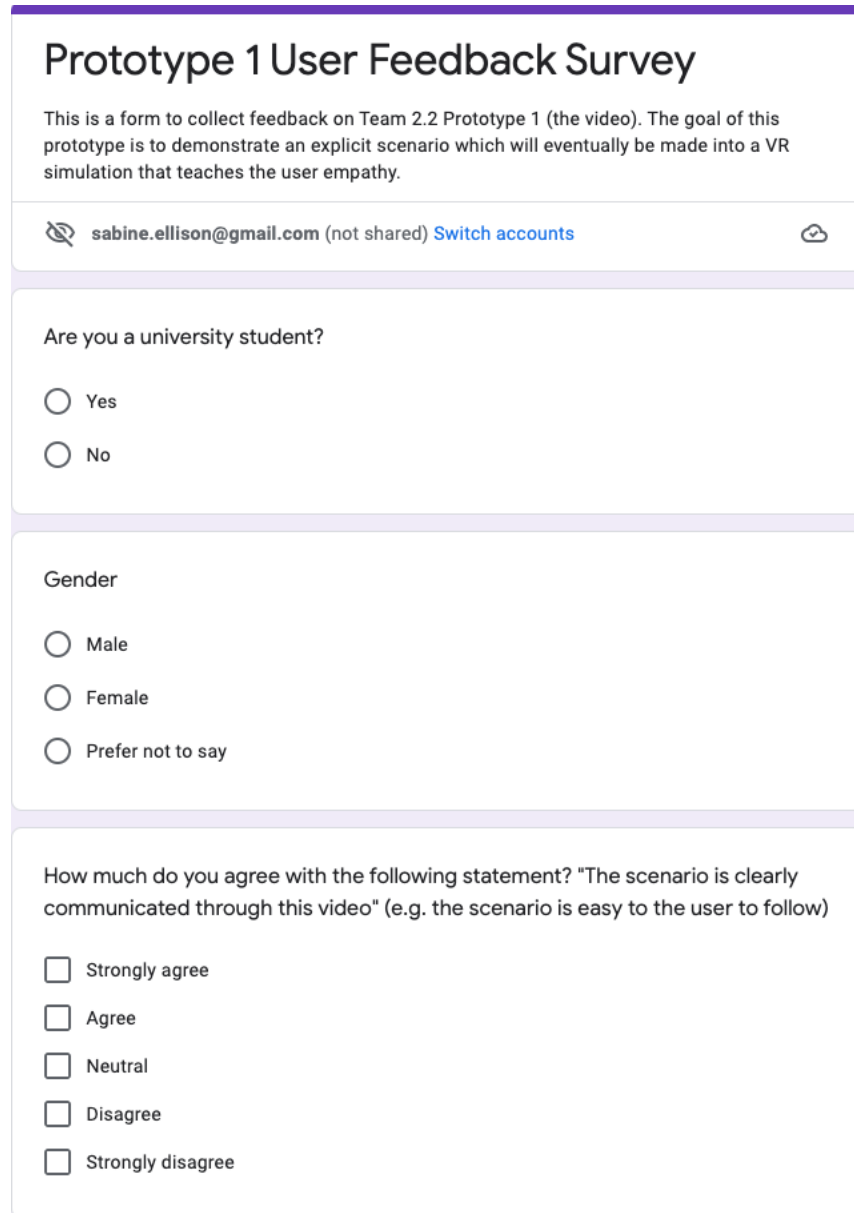Fig 3; Represents subsystem 3, where the user is asked to make a choice

Fig 4; Represents subsystem 5 , where the user is asked to make a choice

4. Prototype Test Plan

Prototype 1 will be tested on 7 potential users (7 university students-3 male, 4 female). The test will consist of the potential users watching the 2-minute video and answering a series of questions in a google form survey.

Link to google form: [Prototype 1 User Feedback Survey](#)

Fig 5; Prototype 1 User Feedback Survey

How much do you agree with the following statement? "The flip between points of view is clear in this video" (e.g. the switch between points of view is easy for the user to follow)

- [ ] Strongly agree
- [ ] Agree
- [ ] Neutral
- [ ] Disagree
- [ ] Strongly disagree

How much do you agree with the following statement? "The script of this video is easy to follow and depicts a realistic situation " (e.g. the dialogue between the 2 characters makes sense and seems like it could be a natural interaction)

- [ ] Strongly agree
- [ ] Agree
- [ ] Neutral
- [ ] Disagree
- [ ] Strongly disagree

How much do you agree with the following statement? "I feel that this situation is an effective way of teaching empathy" (e.g. the scenario allowed you to see the situation from both points of view and encouraged you to understand and share the feelings of the characters in the scenario)

- [ ] Strongly agree
- [ ] Agree
- [ ] Neutral
- [ ] Disagree
- [ ] Strongly diagree

Fig 6; Prototype 1 User Feedback Survey

Other comments/observations

Your answer

Suggestions for improvement

Your answer

Fig 7; Prototype 1 User Feedback Survey

Table 1. Prototype Test Plan 1

Test ID	Test Objective (Why)	Description of Prototype used and of Basic Test Method (What)	Description of Results to be Recorded and how these results will be used (How)	Estimated Test duration and planned start date (What)
1	Test Scenario Communication (ensure that scenario makes sense and is easy to follow for the user)	Take a video with group members acting as avatars in scenario and paste together to test empathy development	Does the system make sense and communicate the scenario effectively? Possible users will state whether they agree with the statement "The scenario is clearly communicated through this video" on a scale from strongly agree to strongly disagree Impact: If the score is neutral, disagree or strongly disagree scenario will be tweaked to be easier for user to consume	2 hour expected duration Start March 1st
2	Test Point of View Flip	Through video cuts ensure that point of view flip is easy to follow, ensure that user is able to follow scenario	Does the point of view make sense with the story line and is it easy to follow? Possible users will state whether they agree with the statement "The flip between points of view is clear in this video" on a scale from strongly agree to strongly disagree Impact: If the score is neutral, disagree or strongly disagree the	

			switch between points of view will be modified to be more clear.	
3	Verify script effectiveness and correctness	Ensure that video script is easy to follow, respectful, and accurately conveys storyline	Does the script make sense and is it easy to follow? Possible users will state whether they agree with the statement "he script of this video is easy to follow and depicts a realistic situation" on a scale from strongly agree to strongly disagree Impact: If the score is neutral, disagree or strongly disagree the script will be tweaked to make more sense and seem like a natural interaction.	
4	Verify overall empathy communication	Ensure overall system demonstrates empathy communication	Does this system communicate empathy? Possible users will state whether they agree with the statement "I feel that this situation is an effective way of teaching a user empathy" on a scale from strongly agree to strongly disagree Impact: If the score is neutral, disagree or strongly disagree the script will be tweaked to make more sense and seem like a natural interaction.	

5. Updated Target Specifications (Prototype I only)

Table 2. Updated Prototype 1 Target Specifications

Criteria	Measurement	Wanted Value	Acceptable Range
Scenario Communication	Strongly agree-Strongly disagree (Prototype 1 User Feedback Survey)	Strongly agree	Agree
Story Communication	Strongly agree-Strongly disagree (Prototype 1 User Feedback Survey)	Strongly agree	Agree
Script Communication	Strongly agree-Strongly disagree (Prototype 1 User Feedback Survey)	Strongly agree	Agree
Empathy Communication	Strongly agree-Strongly disagree (Prototype 1 User Feedback Survey)	Strongly agree	Agree

6. Test Results and Analysis

Table 3: Question key for Table 4

Question	
1	How much do you agree with the following statement? "The scenario is clearly communicated through this video" (e.g. the scenario is easy to the user to follow)
2	How much do you agree with the following statement? "The flip between points of view is clear in this video" (e.g. the switch between points of view is easy for the user to follow)
3	How much do you agree with the following statement? "The script of this video is easy to follow and depicts a realistic situation " (e.g. the dialogue between the 2 characters makes sense and seems like it could be a natural interaction)
4	How much do you agree with the following statement? "I feel that this situation is an effective way of teaching empathy" (e.g. the scenario allowed you to see the situation from both points of view and encouraged you to understand and share the feelings of the characters in the scenario)

Table 4: Results from multiple choice questions

Are you a university student?	Gender	Question 1	Question 2	Question 3	Question 4
Yes	Male	Strongly agree	Strongly agree	Agree	Strongly agree
Yes	Male	Agree	Neutral	Agree	Agree
Yes	Female	Strongly agree	Strongly agree	Strongly agree	Strongly agree
Yes	Female	Neutral	Agree	Agree	Neutral
Yes	Male	Agree	Disagree	Agree	Agree
Yes	Female	Agree	Strongly agree	Strongly agree	Strongly agree
Yes	Female	Strongly agree	Strongly agree	Strongly agree	Agree
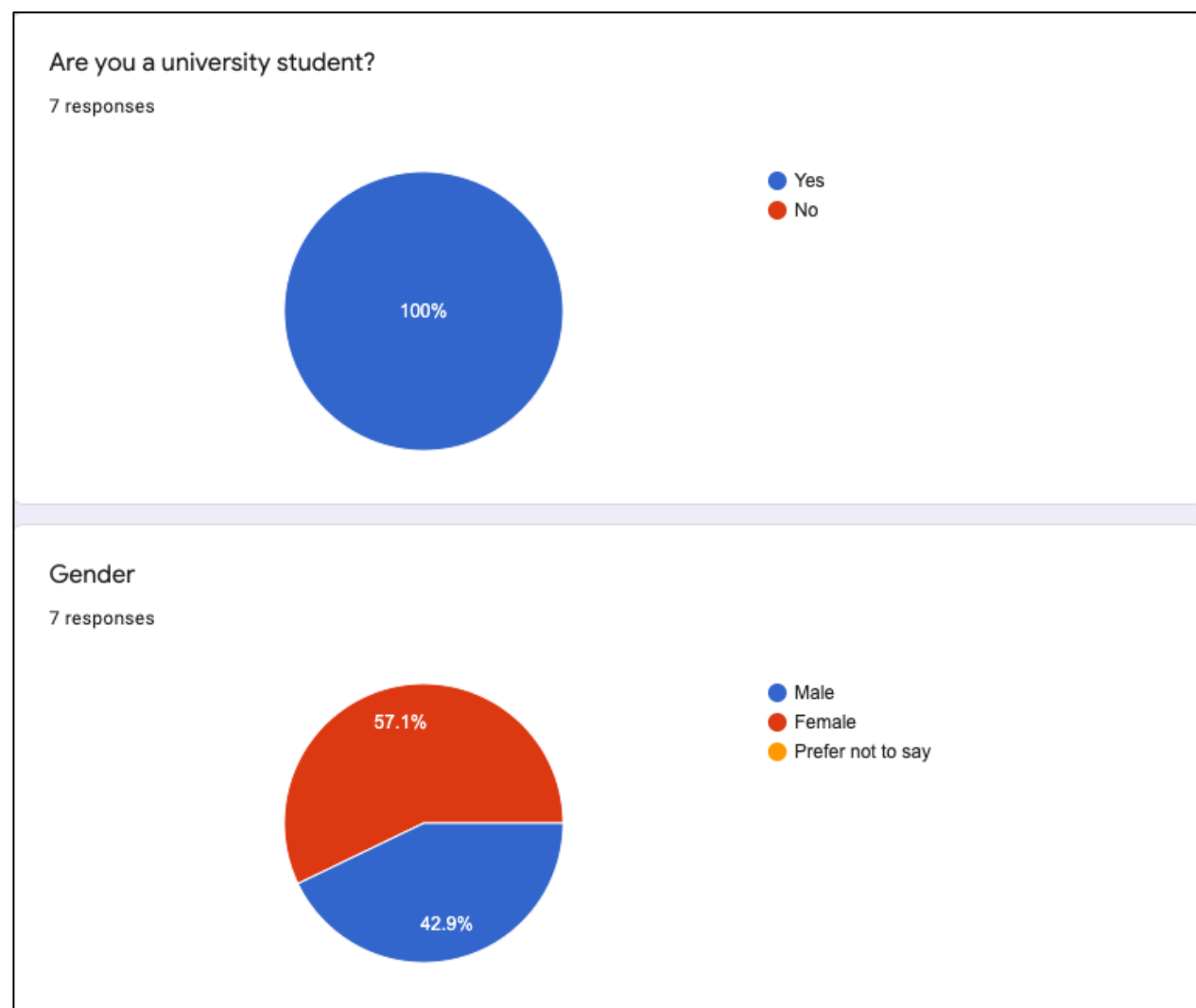
Fig 8; Pie charts

Question 1:

How much do you agree with the following statement? "The scenario is clearly communicated through this video" (e.g. the scenario is easy to the user to follow)

7 responses

Strongly agree	3 (42.9%)
Agree	3 (42.9%)
Neutral	1 (14.3%)
Disagree	0 (0%)
Strongly disagree	0 (0%)

Fig 9; Results-Question 1

Question 2:

How much do you agree with the following statement? "The flip between points of view is clear in this video" (e.g. the switch between points of view is easy for the user to follow)

7 responses

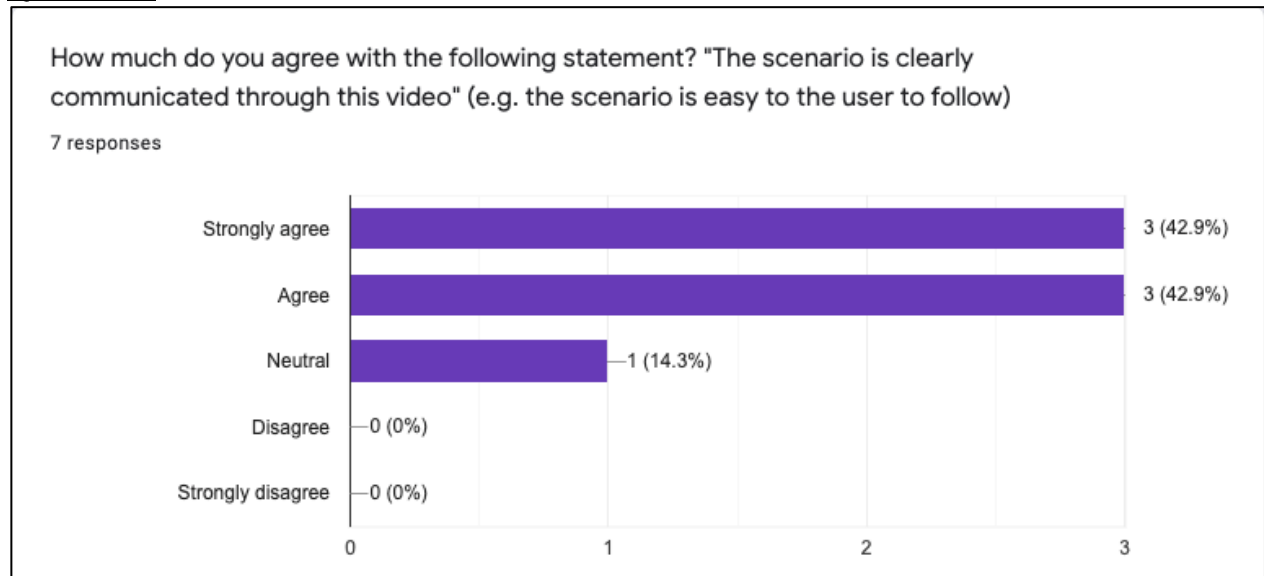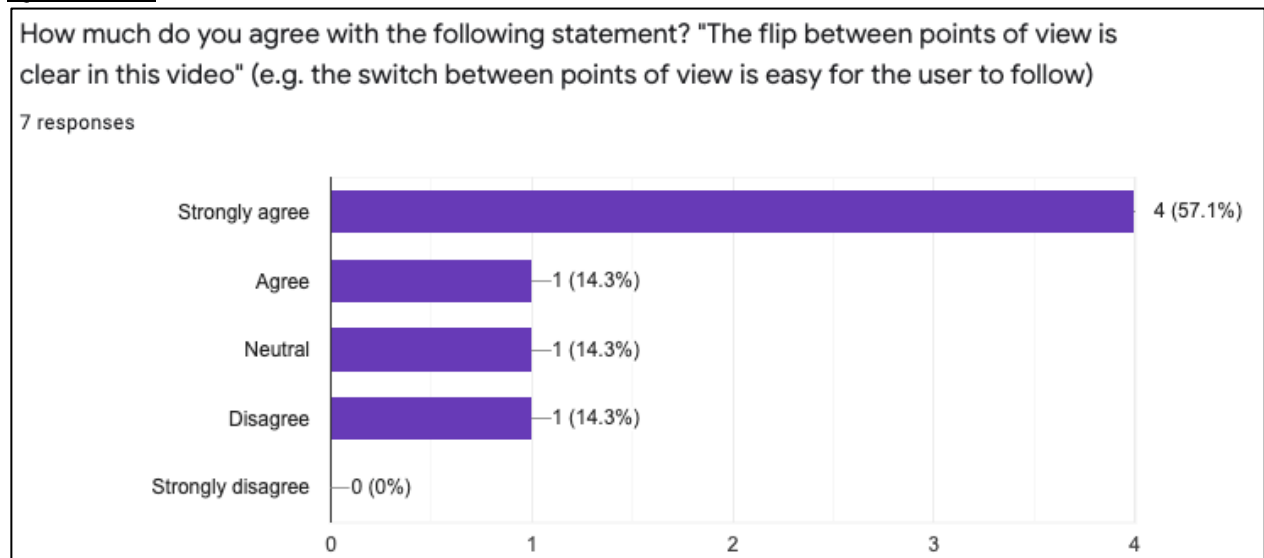|	
Strongly agree	4 (57.1%)
Agree	1 (14.3%)
Neutral	1 (14.3%)
Disagree	1 (14.3%)
Strongly disagree	0 (0%)

Fig 10; Results-Question 2

Question 3:

How much do you agree with the following statement? "The script of this video is easy to follow and depicts a realistic situation " (e.g. the dialogue between the 2 characters makes sense and seems like it could be a natural interaction)
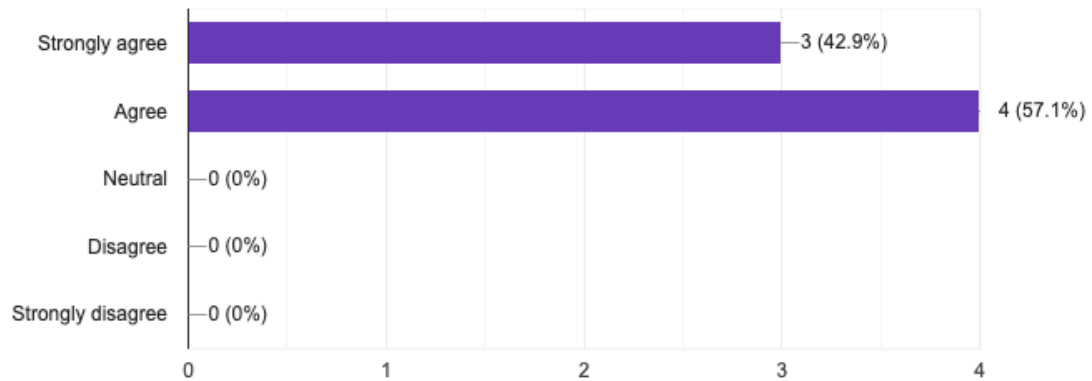
7 responses

Fig 11; Results-Question 3

Question 4:

How much do you agree with the following statement? "I feel that this situation is an effective way of teaching empathy" (e.g. the scenario allowed you to see the situation from both points of view and encouraged you to understand and share the feelings of the characters in the scenario)
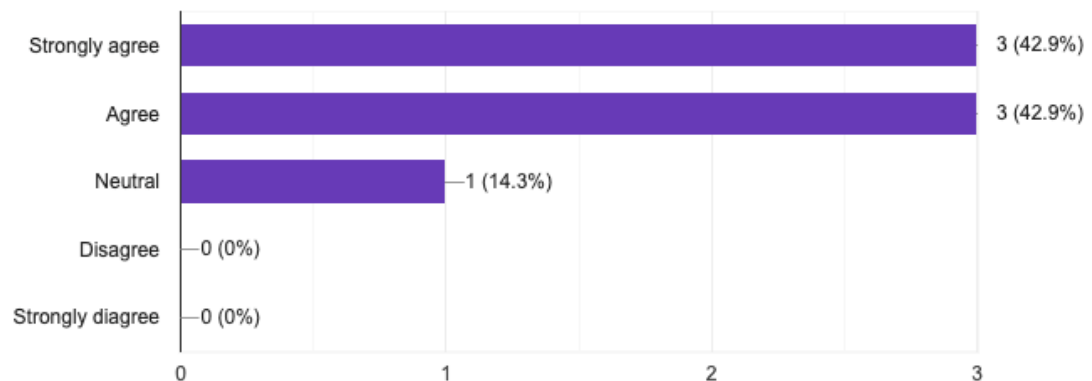
7 responses

Fig 12; Results-Question 4

Answers to optional long answer questions:

Other comments/observations

5 responses

It is hard to hear the voices over the music

Very well done! The future is female!

I think the idea is really good, getting to see different points of view seems like a really good way to understand empathy.

Loved the video

The video was organized really well and was easy to follow/understand. Some parts were hard to hear the person talking.

Suggestions for improvement

3 responses

Maybe make the dialect more clear and longer time intervals to read the signs since it is very fast

The video seemed to have a lot of jumps and cuts. At certain times it made it difficult to fully understand what is going on for a first time watch though. Having a brief explanation for the scenario at the start before having it acted out might help make it easier to follow what's going on.

Maybe captions could be included for better communication

Fig 13; Results-Long answer questions

Based on the answers from the survey, it appears that the flip between points of view was unclear for some users. When we create the final comprehensive prototype, we will ensure that the change between points of view is more understandable and clearer for the users to follow. Furthermore, we will consider that the user may need more of an explanation of what the "experience" will entail to better understand what will be occurring in the scenario.

7. Next Step: Prototype II

Table 2. Prototype Test Plan 2

Test ID	Test Objective (Why)	Description of Prototype used and of Basic Test Method (What)	Description of Results to be Recorded and how these results will be used (How)	Estimated Test duration and planned start date (What)
1	Test avatar expression functionality (ensure avatar asset functions properly)	In Unity software, run a test of avatar movements including expression of face	Does the avatar accurately convey expressions? Results: YES/NO Impact: If the avatar does not convey expressions, more testing must be done to fix this error	2 hour expected duration Start March 7th
2	Test avatar body movement functionality (ensure avatar asset functions properly)	In Unity software, run a test of avatar movements including body movement	Does the avatar accurately convey expressions? Results: YES/NO Impact: If the avatar does not convey body movement, more testing must be done to fix this error	2 hour expected duration Start March 7th
3	Test elevator asset functionality (ensure asset functions properly)	In Unity software, run a test of elevator background to ensure that it functions and that avatars can be added to the scene	Can the elevator asset be used in Unity? Can avatars be placed into elevator? Results: YES/NO Impact: If the elevator asset cannot be used then a new asset must be found	1 hour expectation Star March 9th

8. Conclusion

Overall, prototype I appeared to be an effective means of teaching empathy to users through the explicit scenario created by the design team. This is essential, as the core of this project is the aim of teaching empathy to the user. Now that we have prototyped and tested our scenario, we can be confident that the storyline idea we decided on during the ideate stage of the design process puts the user in the "shoes" of another person and encourages the user to understand and share in the feelings of another person. When we create a final comprehensive prototype, we will focus on ensuring the flip between points of view is clear. Furthermore, we will provide an explanation of the user with an overview of the scenario prior to the experience staring to aid in their understanding of the scenario.