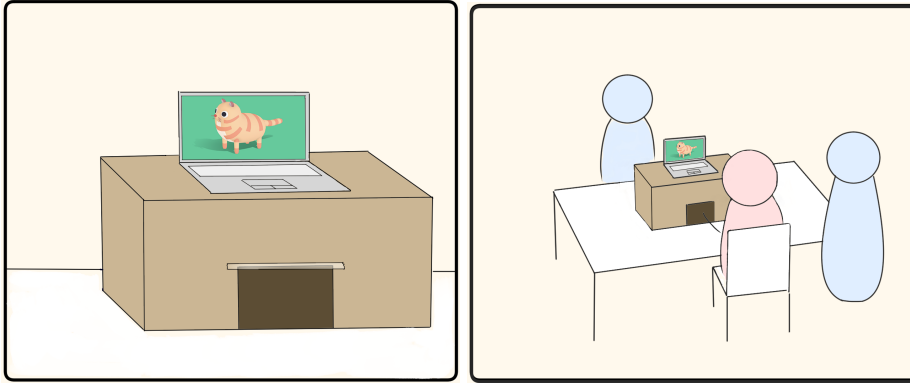


Preparation

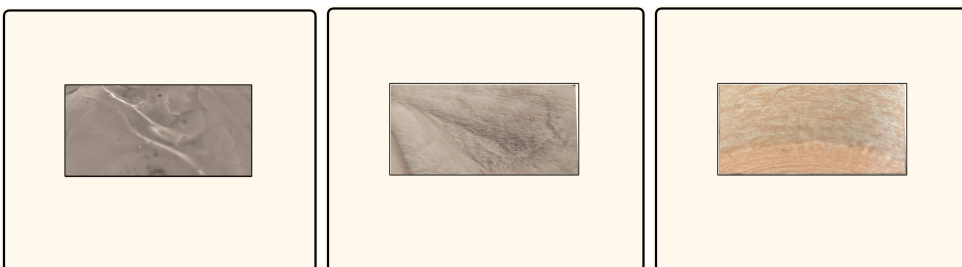
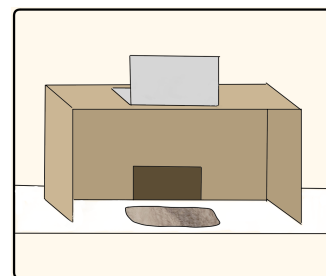
Setup:



- Ensure the computer and the cardboard box are correctly positioned.
- Check that all textures are properly placed inside the box.
- Ensure the virtual pet software/game is running and responsive.
-

Resources/ Materials Required:

- **Human resources:**
 - Assistants * 2, (one for changing textures & running the software, one for explaining and observing)
- **Hardware** (Ensure all sensors are calibrated and connected to the computer correctly):
 - FSR406 Sensor * 4
 - Voltage Conversion Module * 4
 - Arduino Uno Board * 1
 - BreadBoard * 1
 - Materials (textures) for testing * 3



- Agreement forms * 1(the informed consent form)

- Laptop * 2 (One for running the software, One for participants to fill)
 - Optional voice recorder (cellphone) for interviews (with participant's consent) *
- 1

- **Online resources:**

- Online Feedback questionnaires (with the modified CCAS form) * 1
- Semi-interview Results Record document * 1
- Interview questions:
 - "Comparing the three textures, which one did you find most enjoyable or realistic to interact with?"
 - "Were there any interactions or moments across the textures that felt particularly immersive?"
 - "Conversely, were there moments that detracted from your experience?"
 - "Do you have any suggestions for how any of the textures could be improved?"

Conducting the Study

The Instructions Participants will Receive

Scene 1



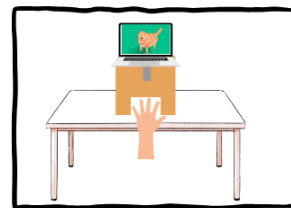
Before beginning, we'll require you to sign an agreement

Scene 2



Take a seat in front of laptop and the cardboard box

Scene3



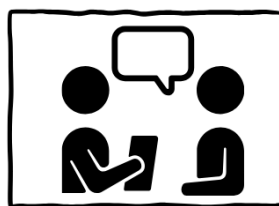
As you explore each texture, observe the virtual pet's reaction on screen

Scene 4



When you ready to transition to the next texture, tell us and we will stop record.

Scene 5



When finished, will have a feedback questionnaire and an interview.

Greet Participants:

Good afternoon/evening, thank you for coming by. This is COMPSCI 705/SOFTENG 702 Group 15. We are doing a user study to investigate the interaction with different textures between human and virtual pets. Here are XX and XXX. We are here to instruct you to complete the experiment. Please sign the informed consent form and please tell us when you are ready to start.

Participant Arrival:

Brief them about the study's purpose without giving specific details that might influence their experience:

The purpose of this study is to investigate how petting with different textures affect people's engagement with virtual pets.

We will analyse how users feel about the different textures and how satisfied they are with the interaction with the virtual pets by collecting the results of the questionnaire survey and recording the amount of time they spend on the different textures. Observe users' interactions with virtual pets and conduct interviews to gain insights into their experiences and feelings.

Finally, the collected data will be integrated and analysed to understand how different textures affect users' interactions with virtual pets.

Pre-Study:

- Ensure the participant is comfortable and ready to begin.
- Double check the equipment is working properly.
-

Engagement Session:

- Direct the participant to sit in front of the computer screen and the box.
- Instruct them to watch the screen and begin interacting/ touching with the first texture inside the box.
- Once the participant says they are ready to move, Exchange the texture to the next one.
- Repeat this process for each texture. (Pay attention to the users action do another simple notes on users' completion of tasks)
-

Feedback Session:

- Provide the participant with the feedback questionnaire (this includes the modified

version of CCAS scale).

<https://docs.google.com/forms/d/1b9udBp9OYG5caDXefmCM2g478tdL8HYGYcm1oD2ztwg/edit>

- Conduct an interview to gain deeper insights.
- Record and take notes of the users' answers for each question.

Interview Questions:

Q1. Comparing the three textures, which one did you find most enjoyable or realistic to interact with?

- Participants 1:
- Participants 2:
- Participants 3:
- Participants 4:
-

Q2. Were there any interactions or moments across the textures that felt particularly immersive?

- Participants 1:
- Participants 2:
- Participants 3:
- Participants 4:
-

Concluding the Session:

- Thank the participants for their time and insights.
- Inform them about when and how they might learn about the study's results, if applicable.

Post-Study Activities:

Data Collection:

- Collect all feedback forms.
- Transcribe any recorded interviews.

Data Analysis:

- Feedback Analysis:
 - Study feedback and identify patterns or specific insights.
- Questionnaire Results (Using modified CCAS scale with support of R):
 - Box-and-whisker diagram

- Mean & median calculation
- Semi-structured Interview Analysis:
 - Affinity diagram
 - Grouping of insights
 - Generate labels/themes
- Grounded Theory Method:
 - Coding
 - Formulate theories based on data patterns