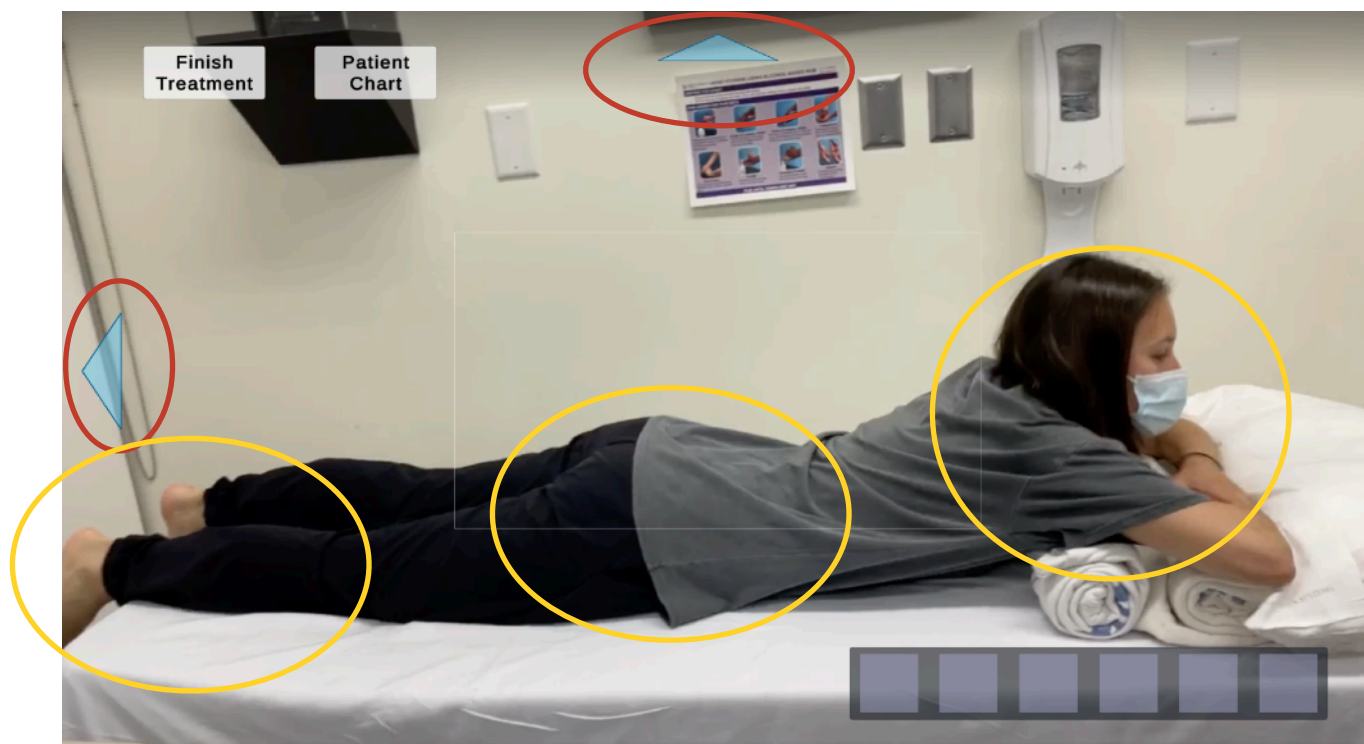# PT Game Report

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OVERVIEW

This project is based on Pi's shockwave mini game. The goal of this extension is to provide an immersive experience with shockwave therapy to the player. The player's objective is to give right treatment to the patient. To achieve that, there are four main things need to be done: find the tools in the room, be cautious of the counter effect during the treatment, troubleshoot the machine and give treatment with right setting, find the right spot on the patient's body. The play testing is conducted by post-playing questionnaire and one-to-one interview. All unsolved (or not fully solved) feedback will be discussed in this report.

THOUGHTS ON FEEDBACK

Navigation system

The player can move between scenes by the arrows (red circle). This part is written in the class SWRoomManager. From the feedback of the play testing, I found that players are uncomfortable with those arrows, and intend to click on the body of the patient. So I added a collider on the Entry object and player can move by clicking the collider (yellow circle). Also we can add collider at the machine wand plug scene or some other scene, but I don't know if this is necessary and will this cause confusion, need more testing and feedback.
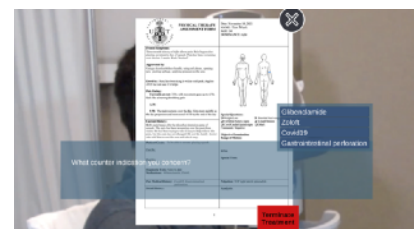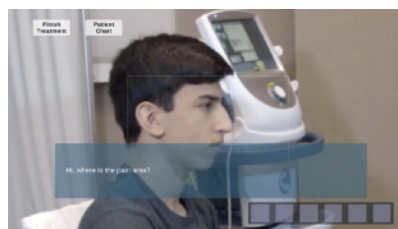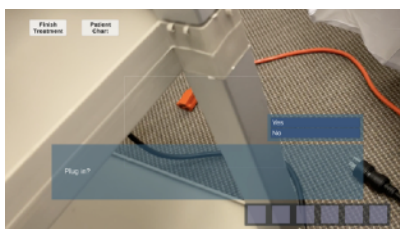
PT GAME REPORT

Inventory

Right now there are four tools can be pick up and used in the game, they are gel, wand, marker and gloves. They are handled by the Inventory class, classes in Tools and some prefabs. Players tend to click on other tools in the scene, the tissue and the cap. More dummy tools without any actual use are preferred, but we need more assets to match the current assets (shown in the inventory bar). For example, the cap can have no use at all, and the tissue can be used to wipe the marker and the gel.
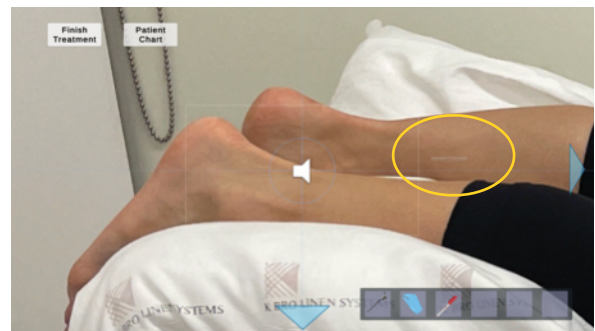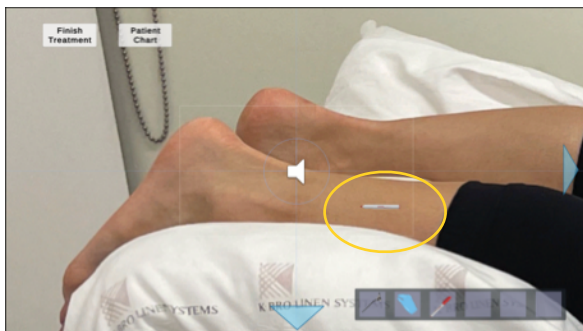

Dialogue

The dialogue system is handled by the Scriptable classes in Dialogue folder and the dialogue triggering is done by the Treatment class. There are three type of Dialogue node, CommonDialogueNode, ChoiceDialogueNode and InputDialogueNode and they connected in a linked-list manner. The instances of them are in the Assets/Dialogue folder. The physical student want more dialogue with the patient, to get the consent of the patient before the treatment.

Guidance and Hint

There are mainly three forms of guidance and hints, future development could base on this. One is through dialogue system, some hint dialogue will be trigger under some condition. The second one is hint text. When the mouse is hovering over some game object like tools and button, there will be some hint text near the pointer. Last one is for using the tools to give the treatment, when the tools chosen from the inventory bar hovering over the area for treatment (elbow, foot), the tool will be highlighted, instead it will be dimmed. The player from the physical therapy team said that they still got confused sometime. There is a balance that we need to handle, sometimes there could be some obstacles for the player to solve, but it shouldn't take too much time and effort.

Patient Chart and Counter Indications

Currently there will be some random medication and medical history show up in the patient chart, some are counter indications some are not. Before this we tried make choice and type input through dialogue system, but it's not that ideal. Some physical team member suggested that don't make the answer too obvious, so each time the medication and medical history will be somehow randomly generated. However, one player says it's quite weird the counter indication changes every time.My suggestion to improve this part is: 1. Give some hints, maybe though the dialogue system, ask the player to check the counter indications carefully. 2. Make the random algorithm better, and have more possible medical history to be generated. 3. There are 2 way to end the game, through the terminate button on the bottom right corner of the patient chart and the Finish Treatment button on the main canvas. Maybe there is a way to make them one.

THOUGHTS ON FUTURE DEVELOPMENT AND MAINTENANCE

Refactoring and packaging

Some class needs renaming, like Treatment, and there are some dead code, dead game object. When renaming them, be careful of some prefabs get object by name. Some script might be better to be in somewhere else, like the ReplayGame is in SWRoomManager game object. The script is also not well packaged, can create more folders to make it looks nicer.

Architecture

This game is getting extended during the term, the coupling problem is noticeable but not severe. There are some effort to reduce the coupling problem, like DialogueChannel, but we currently aim for high value implementation, and decide to not put much effort on the architecture design. For future development, we can either have more scene or use some event handling strategy to make the structure nicer. But this might not be the task with high priority.

Debugging

The play testing is done in rush, and the current version is not tested yet. The game improves a lot since last play testing, a lot of bugs are solved. However, I would say more play testing is needed, to find out the hidden bug and make it more user-friendly.