Deliverable D

The Ottawa Hospital Virtual Reality Treatment Simulation

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Introduction: The problem statement covers why are we working on this project and what's our end goal,

Problem Statement:

We are creating a VR platform for the Ottawa Hospital where patients can explore cancer treatment scenarios prior to receiving treatment.

Initial Brainstorming:

Allison's Ideas:

1) Select language → Select between an end-to-end mode or further select between individual scenes →play clips with pause, play skip and rewind buttons
   If there is a lot of movement detected, movement prompt flashes

2) Select language (activates subtitles for all screens) → click to proceed with tour → have all clips play (with standard pause, play, skip and rewind button) and additional button to skip complete clips

3) Select language (activates subtitles for all screens) → Warning screen informing patients that it is ok to move around in simulation but not in tour, click to proceed with tour → have all clips play (with standard pause, play, skip and rewind button) and additional button to skip complete clips

Kerollos's Ideas:

1) A default controller free mode, that plays everything with both French and English subtitles that play end to end. As well as a controller on mode that allows you to pick and choose

2) Nature scene , select language → Pick and Watch or Pre-selected. Will pause if user stands up. Uses controller to pause, play, rewind, skip.

3) Hospital waiting room → Language selection → Controller off → Preselected video
   Stops when patient sits up → Controller on → Preselected video → Pick and watch
   Uses controller to pause, play, skip & rewind

Adi’s Ideas:

1) A movie scene, select language, pick and watch or pre-selected, lasts until their operation has been completed.
2) Something like a tv focused specifically based around the surgery/operation they are going through.

3) A research based video on the procedure there are going through.

Luke’s Ideas:

1) Language is selected before VR experience starts. Video begins when patient sits down and ends when patient sits up

2) First asks for language then asks for automatic or controlled. If the patient selects controlled they will be able to pause, rewind, and fastword the video at will. If they chose automatic the video will begin when they sit down and end when they get up.

3) Have patient select between english and french. Then have patient chose which scene they want. The patient can then choose if they want to have control of the video or if they want it to run automatically.

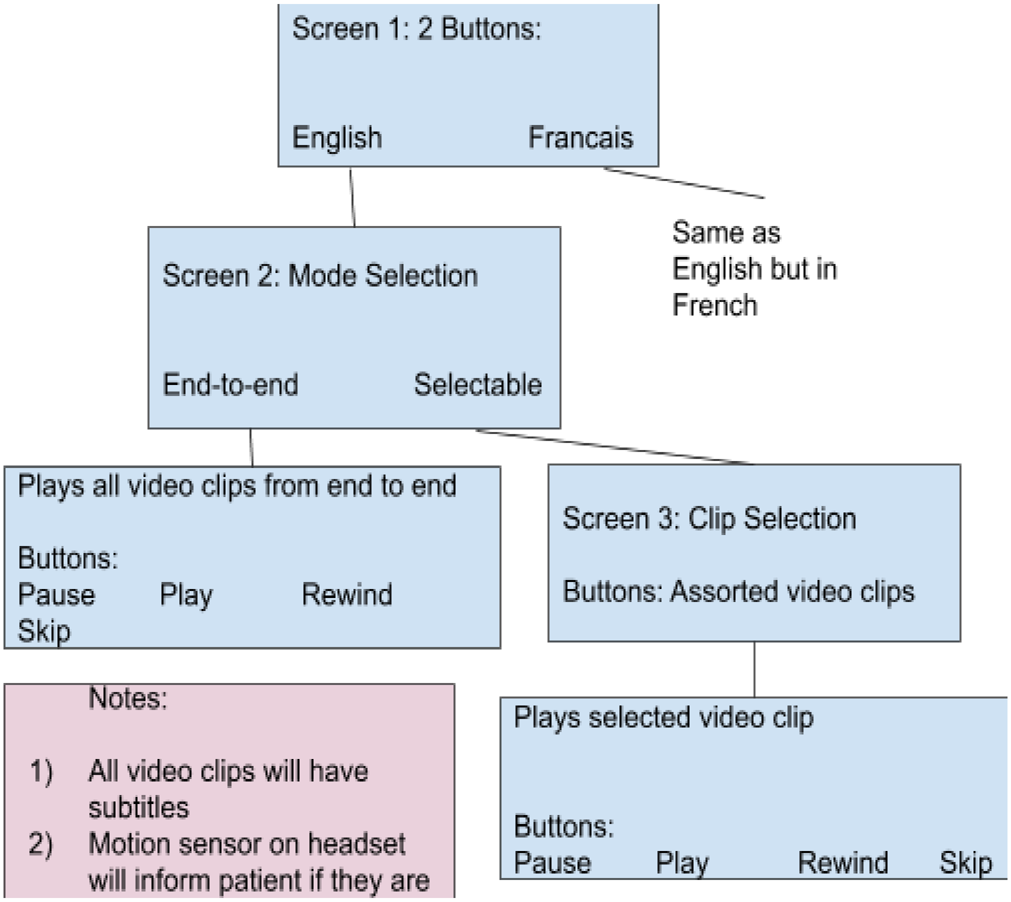
Andrea’s Ideas:

1) Patient observes a peaceful scene on their screen while supervisor makes selections on an external screen. The external screen first asks for a language choice, then, for a video to be selected and finally, for a mode (controllers off or on) to be selected. If controllers are on, patient has a controller to play, pause and rewind video. If not, video plays end-to-end.

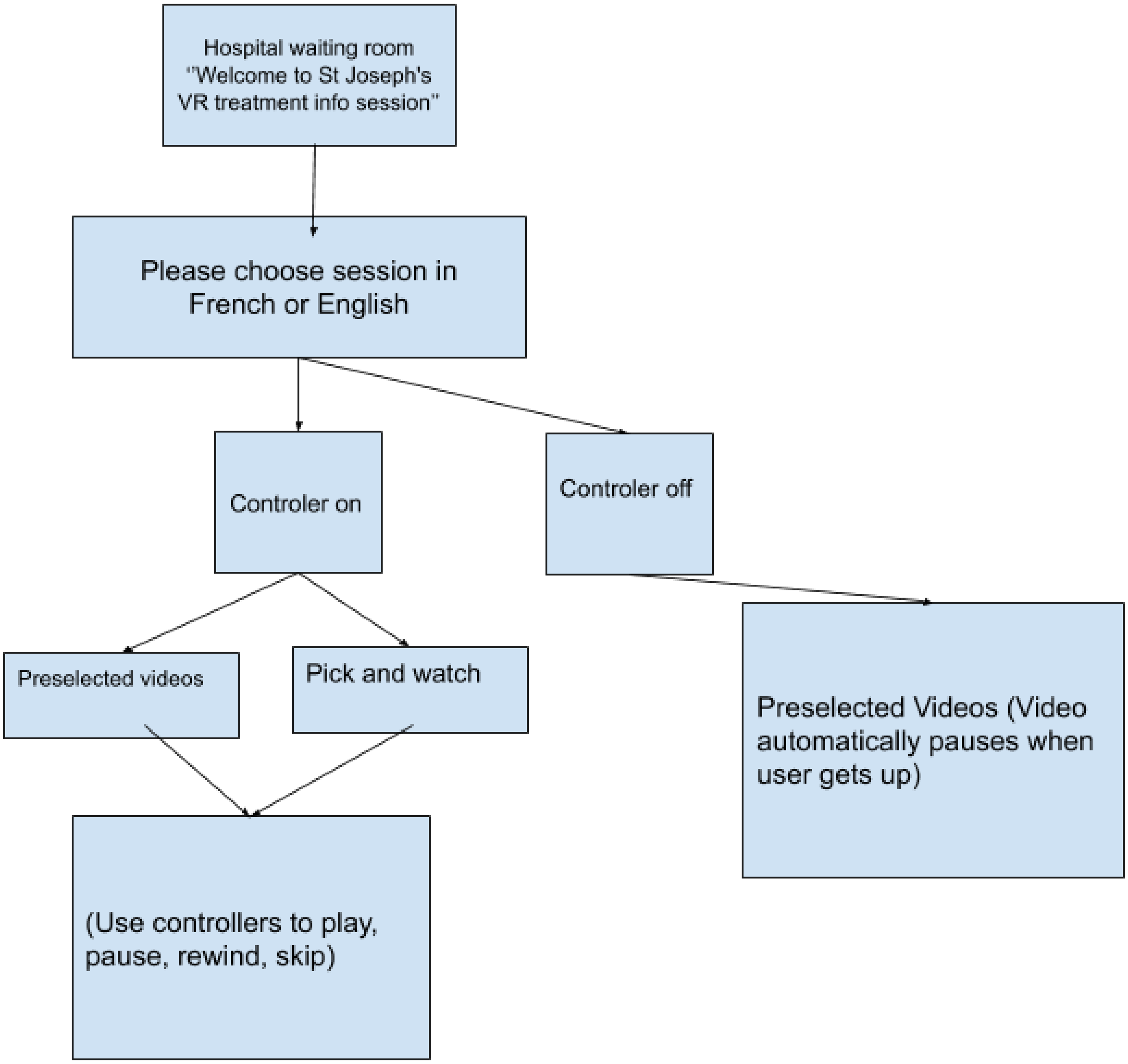
2) Patient has controller and navigates through menu independently. First screen displays the hospital waiting room and asks for language choice. Patient can then choose to watch the whole pre-selected video at once or can choose clips from the video to watch. In each case, patient has controller to play, pause and rewind.

3) Patient has controller. Screen 1 asks for language choice (peaceful or waiting room background decided by supervisor depending on patient). Screen 2 displays instructions and disclaimers about video to follow (mentions motion sensors and that video will pause automatically if patient stands up). When patient clicks ‘continue’ button, preselected video plays. Patient has controller to play, pause and rewind.

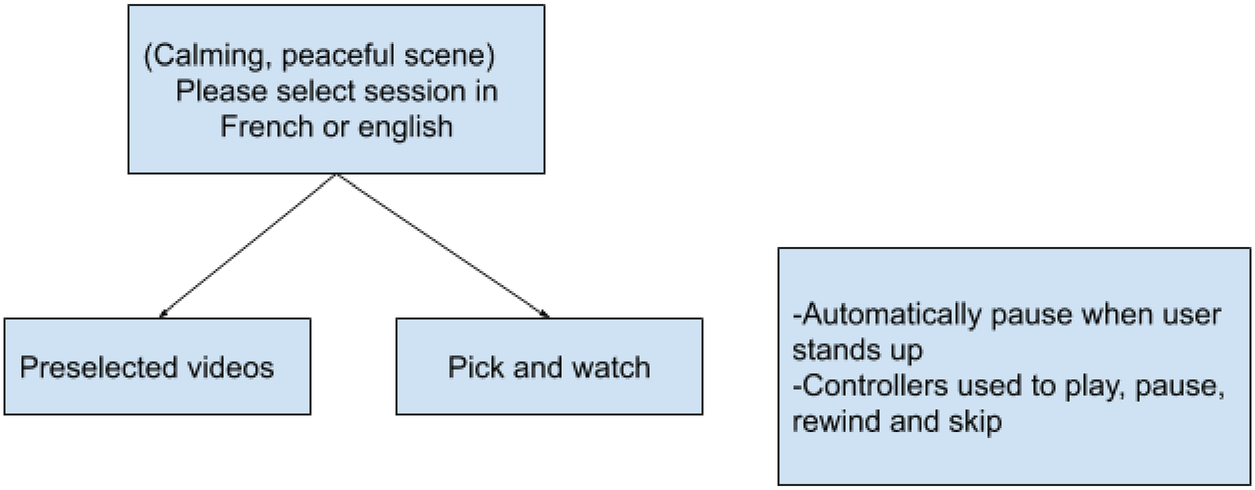
Concept 1: Concept explained through a flow chart,


Screen 1: 2 Buttons:
English
Francais
Same as English but in French
Screen 2: Mode Selection
End-to-end
Selectable
Plays all video clips from end to end
Buttons:
Pause
Play
Rewind
Skip
Screen 3: Clip Selection
Buttons: Assorted video clips
Notes:
1) All video clips will have subtitles
2) Motion sensor on headset will inform patient if they are
Plays selected video clip
Buttons:
Pause
Play
Rewind
Skip

Concept 2: Concept explained through a flow chart,


Hospital waiting room
"Welcome to St Joseph's VR treatment info session"
Please choose session in French or English
Controler on
Controler off
Preselected videos
Pick and watch
Preselected Videos (Video automatically pauses when user gets up)
(Use controllers to play, pause, rewind, skip)

Concept 3: Concept explained through a flow chart,


(Calming, peaceful scene)
Please select session in French or english
Preselected videos
Pick and watch
-Automatically pause when user stands up
-Controllers used to play, pause, rewind and skip

Selection Matrix:

	Design 1	**Design 2**	**Design 3**
User Friendliness	2	2	3
Control Over Video	3	2	2
Memory	2	2	3
Layout	1	2	3
# of Options	2	3	1
Accessibility	3	2	2
Calming Effect	2	2	3
Total	**15**	**15**	**17**

In the end, Design 3 turned out to be best.

Conclusion:

After exploring through all the ideas mentioned by or team members we decided on three concepts provided by Kerollos. His ideas were creative and made sure that they were very successful. In the end, through selection matrix while giving each design/concept a numerical number on how productive they would, we could see that Design 3 would be most fruitful and yield great results.