



Custom Made User Interface for Subtitles in VR

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Authors



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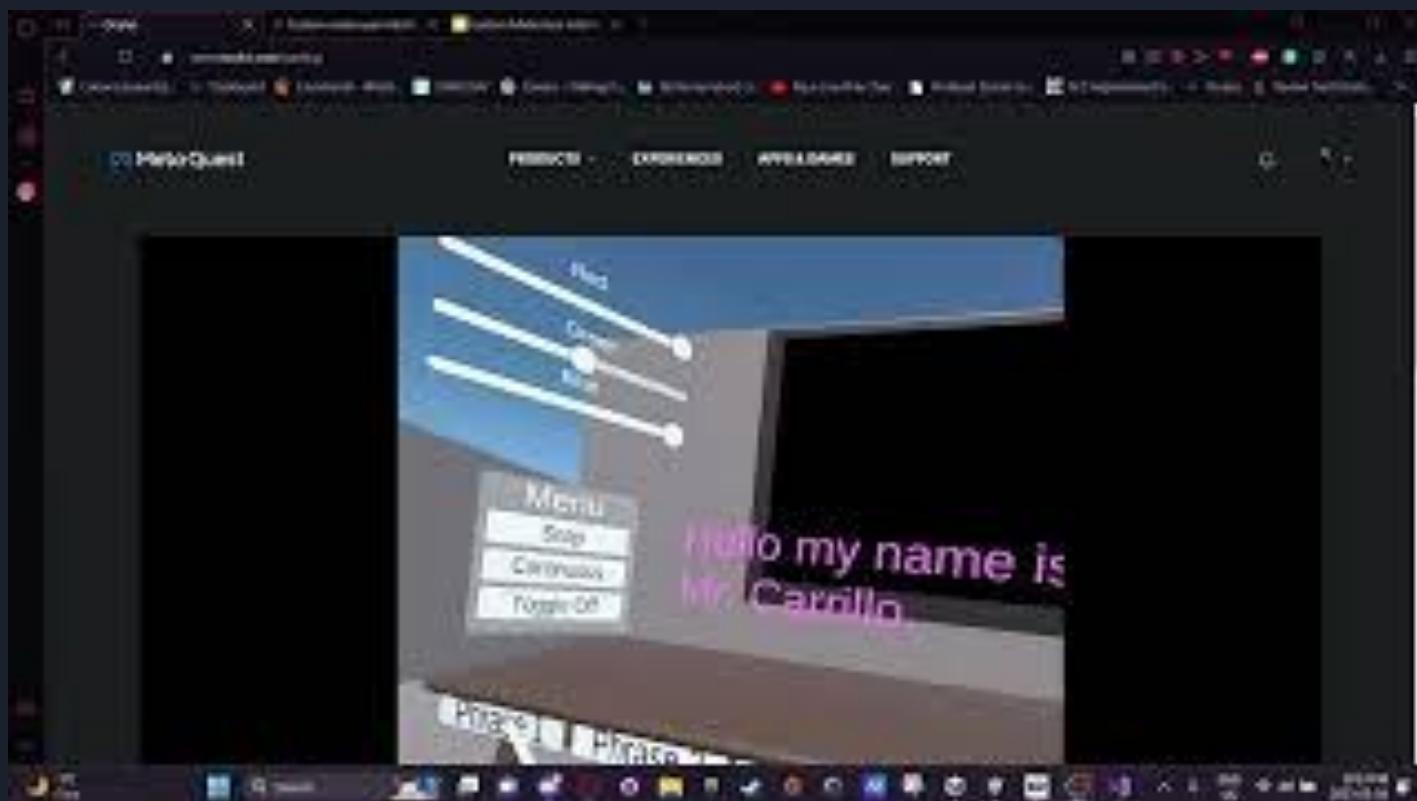


Use case description

Our use case is really simple for users to interact with. The entirety of the interface is just a couple buttons and sliders that users can use to turn on/off subtitles as well as customize the entire experience to their liking.

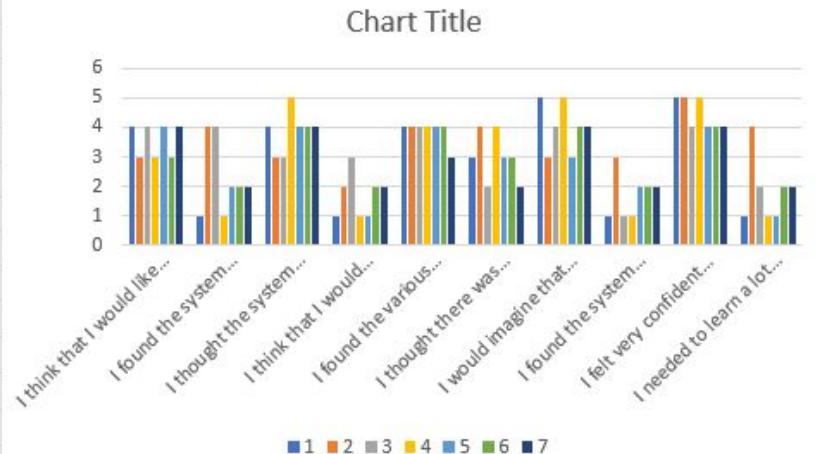
Users access the menu then from their all of the options to customize their experience is available to them.

Video demonstration



SUS

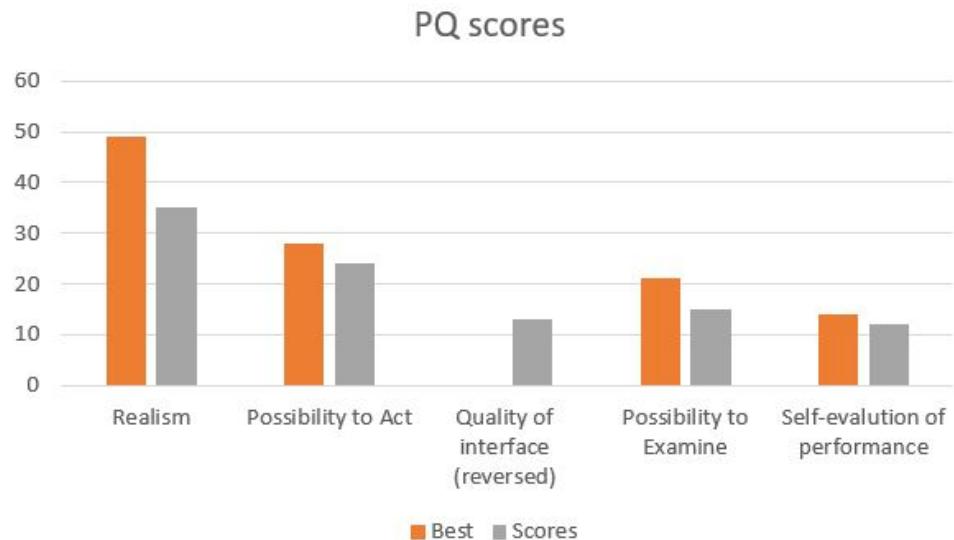
	1	2	3	4	5	6	7
I think that I would like to use this system again	4	3	4	3	4	3	4
I found the system easy to learn	1	4	4	1	2	2	2
I thought the system was reliable	4	3	3	5	4	4	4
I think that I would be able to use this system at work	1	2	3	1	1	2	2
I found the various parts of the system easy to use	4	4	4	4	4	4	3
I thought there were enough help facilities	3	4	2	4	3	3	2
I would imagine that most people would be able to use this system	5	3	4	5	3	4	4
I found the system interesting	1	3	1	1	2	2	2
I felt very confident when using the system	5	5	4	5	4	4	4
I needed to learn a lot of things before I could use the system	1	4	2	1	1	2	2



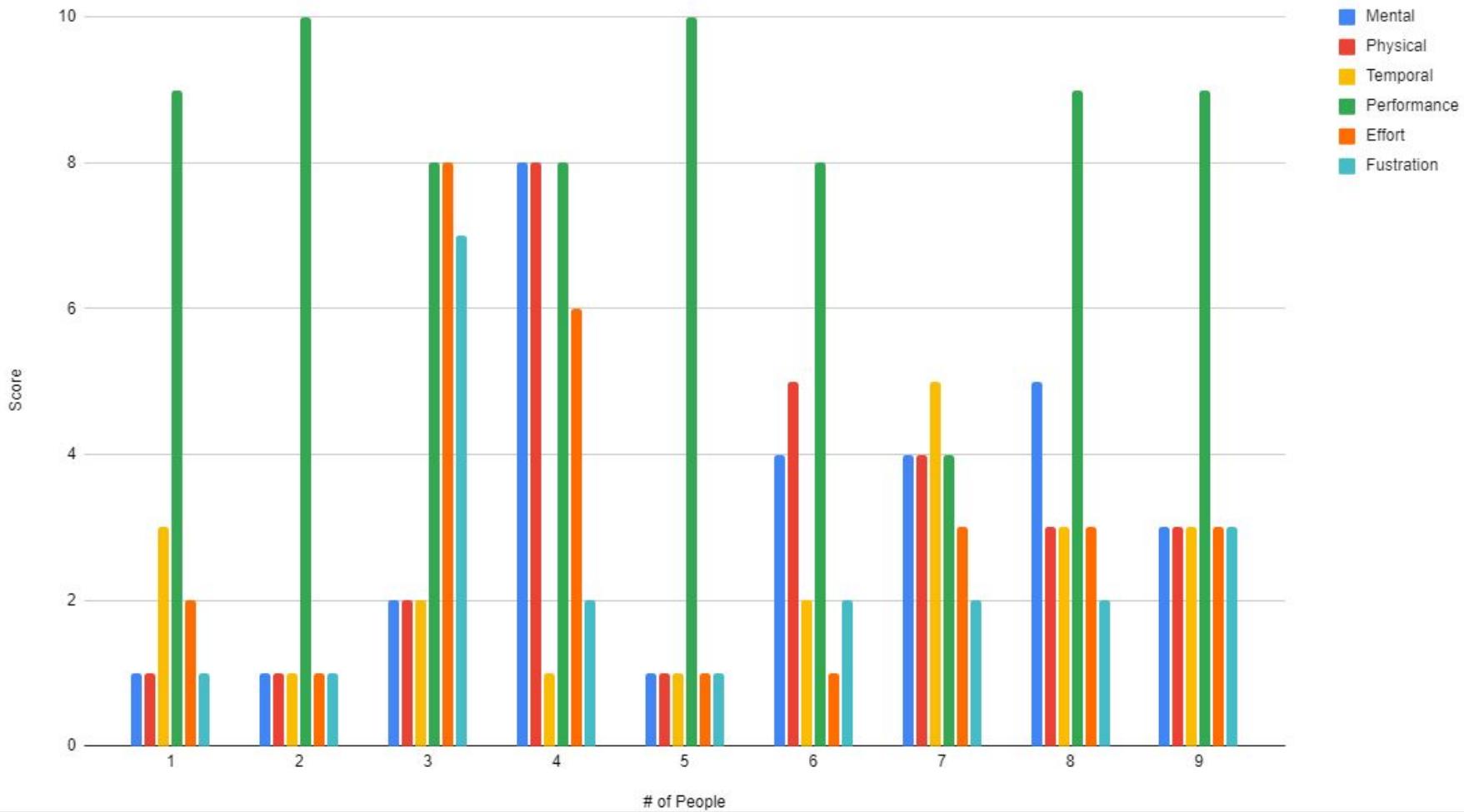
SUS score was 73

PQ

Catagories	Best	Scores
Realism	49	35
Possibility to Act	28	24
Quality of interface (reversed)	0	13
Possibility to Examine	21	15
Self-evalution of performance	14	12



NASA-TLX





Other Feedback

- Fix menu inconsistencies
- Subtitles are hard to see



Limitations

Prototype is missing user personalization for the subtitles

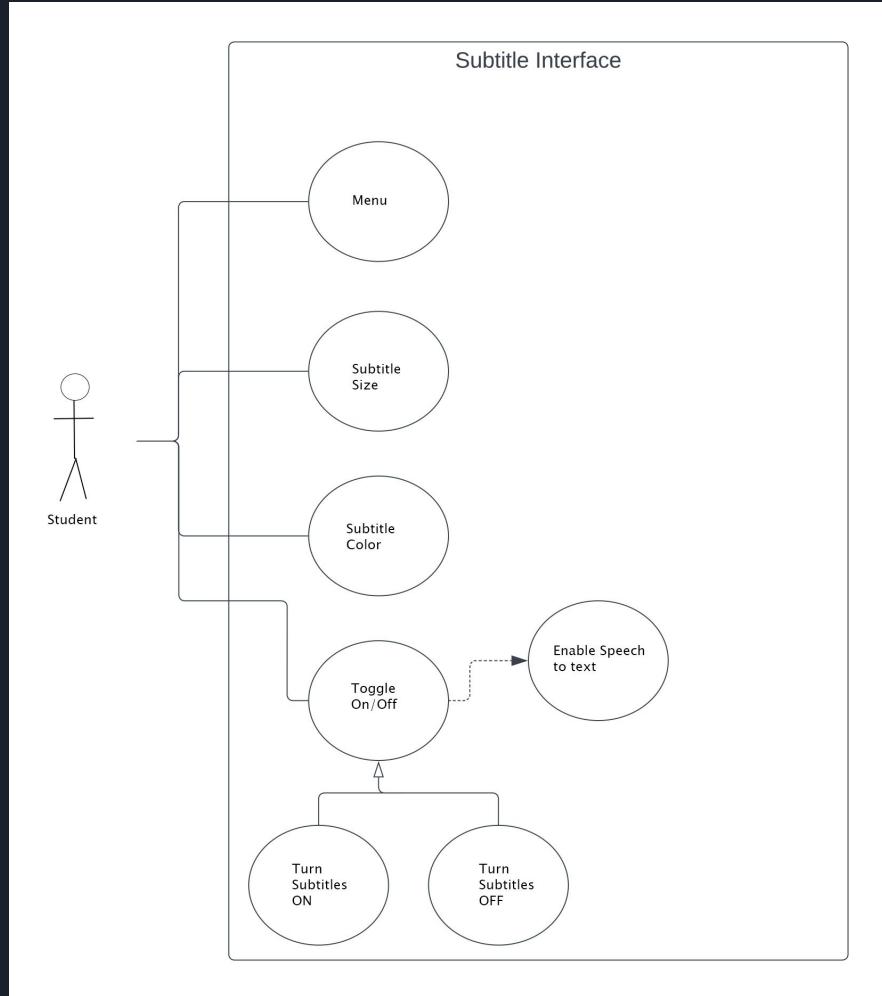
From the data gathered our interface is easy to use, but the subtitles could have some improved user UI to make them easier to read and improved positioning in the 3D space

In the future we will prototype with the different positions of the subtitles in the 3D space as well as a font style change for users. We have already implemented the color change which was desired from users during the test.

Appendices

SUS

Use Case



PQ

	Questions	Best	Scores	Average	Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Realism	3+4+5+6+7+10+13	49/49		313	35	1	5	4	4	2	1	4	3	5	4	4	4	3	1	4	1	5	4	1	1	
Possibility to Act	1+2+8+9	28/28		213	24	2	5	5	4	3	2	5	3	5	5	4	4	4	3	4	1	5	4	1	1	
Quality of interface (reversed)	14+7+18	0/21		116	13	3	6	6	4	5	3	5	4	5	6	5	5	3	4	3	5	5	2	2	5	
Possibility to Examine	11+12+19	21/21		139	15	4	6	6	4	5	4	5	5	5	6	5	5	4	6	4	6	5	3	3	6	
Self-evaluation of performance	15+16	14/14		104	12	5	6	6	5	5	5	6	5	5	6	5	6	5	6	5	6	6	3	4	6	
						6	7	7	5	6	5	6	5	6	6	5	6	5	6	5	6	6	4	6	6	
						7	7	7	5	6	5	6	6	6	6	6	6	6	6	6	6	7	6	5	6	
						8	7	7	6	6	6	6	6	6	7	6	7	6	6	6	7	7	6	6	6	
						9	7	7	6	6	7	7	6	6	7	6	7	7	7	7	7	7	6	6	7	
						Total	56	55	43	44	38	50	43	49	53	46	49	40	49	38	54	50	31	35	50	



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NASA-TLX Scoring Worksheet

Raw Scores and Weighting (According to the TLX Scoring Manual)

Instructions: Enter raw/unweighted rating scores in columns B - G.

*Note: Means for individual scores treat "0" as valid rather than missing data.

User#	B	C	D	E	F	G	Individual Scores						Mean*
	Mental	Physical	Temporal	Performance	Effort	Frustration	Weighted			Raw/Unweighted			
							Mental	Physical	Temporal	Performance	Effort	Frustration	
0/Ex	55	10	75	25	80	40	165	10	225	125	80	80	45.67
1	10	10	30	90	20	10	20	20	120	450	60	20	38.33
2	10	10	10	100	10	10	40	30	40	500	50	40	28.00
3	20	20	20	80	80	70	40	20	20	400	400	210	64.12
4	80	80	10	80	60	20	400	400	0	400	180	20	73.68
5	10	10	10	100	10	10	40	30	40	500	50	40	28.00
6	40	50	20	80	10	20	120	150	60	400	0	40	48.13
7	40	40	50	40	30	20	160	200	250	160	30	0	42.11
8	50	30	30	90	30	20	200	60	90	450	120	0	51.11
9	30	30	30	90	30	30	120	90	120	450	150	120	42.00

Group Score Results

Weighted		Raw/Unweighted	
Overall	46.16	Overall	26.67
Diagnostic Subscores		Diagnostic Subscores	
Mental	126.67	Mental	32.22
Physical	111.11	Physical	31.11
Temporal	92.50	Temporal	53.33
Performance	412.22	Performance	83.33
Effort	130.00	Effort	31.11
Frustration	70.00	Frustration	23.33

People Testing ours



Us testing peoples

