

Anexos

Presence Questionnaire - Utilizador 1

<i>Item Stems</i>	<i>ITCorr</i>	<i>Score (1-8)</i>	<i>Real Score</i>	<i>Factor(s)</i>
1. How much were you able to control events?	0,43	7	3,01	CF
2. How responsive was the environment to actions that you initiated (or performed)?	0,56	5	2,8	CF
3. How natural did your interactions with the environment seem?	0,61	4	2,44	CF
4. How completely were all of your senses engaged?	0,39	4	1,56	SF
5. How much did the visual aspects of the environment involve you?	0,48	5	2,4	SF
6. How much did the auditory aspects of the environment involve you?	0,32	3	0,96	SF
7. How natural was the mechanism which controlled movement through the environment?	0,62	6	3,72	CF
8. How aware were you of events occurring in the real world around you?	0,03	4	0,12	DF
9. How aware were you of your display and control devices?	-0,14	3	-0,42	DF
10. How compelling was your sense of objects moving through space?	0,51	5	2,55	SF
11. How inconsistent or disconnected was the information coming from your various senses?	0,33	4	1,32	RF
12. How much did your experiences in the virtual environment seem consistent with your real-world experiences?	0,62	4	2,48	RF, CF
13. Were you able to anticipate what would happen next in response to the actions that you performed?	0,43	6	2,58	CF
14. How completely were you able to actively survey or search the environment using vision?	0,59	6	3,54	RF, CF, SF
15. How well could you identify sounds?	0,34	1	0,34	RF, SF
16. How well could you localize sounds?	0,3	1	0,3	RF, SF
17. How well could you actively survey or search the virtual environment using touch?	0,15	7	1,05	RF, SF
18. How compelling was your sense of moving around inside the virtual environment?	0,62	5	3,1	SF
19. How closely were you able to examine objects?	0,55	7	3,85	SF
20. How well could you examine objects from multiple viewpoints?	0,49	8	3,92	SF
21. How well could you move or manipulate objects in the virtual environment?	0,11	8	0,88	CF
22. To what degree did you feel confused or disoriented at the beginning of breaks or at the end of the experimental session?	-0,06	1	-0,06	RF
23. How involved were you in the virtual environment experience?	0,52	8	4,16	
24. How distracting was the control mechanism?	0,37	2	0,74	DF
25. How much delay did you experience between your actions and expected outcomes?	0,41	1	0,41	CF
26. How quickly did you adjust to the virtual environment experience?	0,42	4	1,68	CF

27. How proficient in moving and interacting with the virtual environment did you feel at the end of the experience?
28. How much did the visual display quality interfere or distract you from performing assigned tasks or required activities?
29. How much did the control devices interfere with the performance of assigned tasks or with other activities?
30. How well could you concentrate on the assigned tasks or required activities rather than on the mechanisms used to perform those tasks or activities?
31. Did you learn new techniques that enabled you to improve your performance?
32. Were you involved in the experimental task to the extent that you lost track of time?

0,45	6	2,7	CF
0,44	4	1,76	DF
0,44	4	1,76	DF, CF
0,51	6	3,06	DF
0,33	3	0,99	CF
0,41	4	1,64	

Tabela 2 - Questionário de Presença Utilizador I

Presence Questionnaire - Utilizador 2

<i>Item Stems</i>	<i>ITCorr</i>	<i>Score (1-8)</i>	<i>Real Score</i>	<i>Factor(s)</i>
1. How much were you able to control events?	0,43	5	2,15	CF
2. How responsive was the environment to actions that you initiated (or performed)?	0,56	5	2,8	CF
3. How natural did your interactions with the environment seem?	0,61	4	2,44	CF
4. How completely were all of your senses engaged?	0,39	4	1,56	SF
5. How much did the visual aspects of the environment involve you?	0,48	5	2,4	SF
6. How much did the auditory aspects of the environment involve you?	0,32	3	0,96	SF
7. How natural was the mechanism which controlled movement through the environment?	0,62	7	4,34	CF
8. How aware were you of events occurring in the real world around you?	0,03	1	0,03	DF
9. How aware were you of your display and control devices?	-0,14	3	-0,42	DF
10. How compelling was your sense of objects moving through space?	0,51	6	3,06	SF
11. How inconsistent or disconnected was the information coming from your various senses?	0,33	4	1,32	RF
12. How much did your experiences in the virtual environment seem consistent with your real-world experiences?	0,62	4	2,48	RF, CF
13. Were you able to anticipate what would happen next in response to the actions that you performed?	0,43	6	2,58	CF
14. How completely were you able to actively survey or search the environment using vision?	0,59	8	4,72	RF, CF, SF
15. How well could you identify sounds?	0,34	1	0,34	RF, SF
16. How well could you localize sounds?	0,3	1	0,3	RF, SF
17. How well could you actively survey or search the virtual environment using touch?	0,15	7	1,05	RF, SF
18. How compelling was your sense of moving around inside the virtual environment?	0,62	3	1,86	SF
19. How closely were you able to examine objects?	0,55	8	4,4	SF
20. How well could you examine objects from multiple viewpoints?	0,49	8	3,92	SF
21. How well could you move or manipulate objects in the virtual environment?	0,11	6	0,66	CF
22. To what degree did you feel confused or disoriented at the beginning of breaks or at the end of the experimental session?	-0,06	4	-0,24	RF
23. How involved were you in the virtual environment experience?	0,52	5	2,6	
24. How distracting was the control mechanism?	0,37	4	1,48	DF
25. How much delay did you experience between your actions and expected outcomes?	0,41	1	0,41	CF
26. How quickly did you adjust to the virtual environment experience?	0,42	4	1,68	CF

27. How proficient in moving and interacting with the virtual environment did you feel at the end of the experience?

28. How much did the visual display quality interfere or distract you from performing assigned tasks or required activities?

29. How much did the control devices interfere with the performance of assigned tasks or with other activities?

30. How well could you concentrate on the assigned tasks or required activities rather than on the mechanisms used to perform those tasks or activities?

31. Did you learn new techniques that enabled you to improve your performance?

32. Were you involved in the experimental task to the extent that you lost track of time?

0,45	4	1,8	CF
0,44	2	0,88	DF
0,44	2	0,88	DF, CF
0,51	5	2,55	DF
0,33	3	0,99	CF
0,41	2	0,82	

Tabela 3 - Questionário de Presença Utilizador 2

Presence Questionnaire - Utilizador 3

<i>Item Stems</i>	<i>ITCorr</i>	<i>Score (1-8)</i>	<i>Real Score</i>	<i>Factor(s)</i>
1. How much were you able to control events?	0,43	7	3,01	CF
2. How responsive was the environment to actions that you initiated (or performed)?	0,56	5	2,8	CF
3. How natural did your interactions with the environment seem?	0,61	4	2,44	CF
4. How completely were all of your senses engaged?	0,39	4	1,56	SF
5. How much did the visual aspects of the environment involve you?	0,48	5	2,4	SF
6. How much did the auditory aspects of the environment involve you?	0,32	3	0,96	SF
7. How natural was the mechanism which controlled movement through the environment?	0,62	6	3,72	CF
8. How aware were you of events occurring in the real world around you?	0,03	4	0,12	DF
9. How aware were you of your display and control devices?	-0,14	3	-0,42	DF
10. How compelling was your sense of objects moving through space?	0,51	5	2,55	SF
11. How inconsistent or disconnected was the information coming from your various senses?	0,33	4	1,32	RF
12. How much did your experiences in the virtual environment seem consistent with your real-world experiences?	0,62	4	2,48	RF, CF
13. Were you able to anticipate what would happen next in response to the actions that you performed?	0,43	6	2,58	CF
14. How completely were you able to actively survey or search the environment using vision?	0,59	6	3,54	RF, CF, SF
15. How well could you identify sounds?	0,34	1	0,34	RF, SF
16. How well could you localize sounds?	0,3	1	0,3	RF, SF
17. How well could you actively survey or search the virtual environment using touch?	0,15	7	1,05	RF, SF
18. How compelling was your sense of moving around inside the virtual environment?	0,62	5	3,1	SF
19. How closely were you able to examine objects?	0,55	7	3,85	SF
20. How well could you examine objects from multiple viewpoints?	0,49	8	3,92	SF
21. How well could you move or manipulate objects in the virtual environment?	0,11	8	0,88	CF
22. To what degree did you feel confused or disoriented at the beginning of breaks or at the end of the experimental session?	-0,06	1	-0,06	RF
23. How involved were you in the virtual environment experience?	0,52	8	4,16	
24. How distracting was the control mechanism?	0,37	2	0,74	DF
25. How much delay did you experience between your actions and expected outcomes?	0,41	1	0,41	CF
26. How quickly did you adjust to the virtual environment experience?	0,42	4	1,68	CF

27. How proficient in moving and interacting with the virtual environment did you feel at the end of the experience?

28. How much did the visual display quality interfere or distract you from performing assigned tasks or required activities?

29. How much did the control devices interfere with the performance of assigned tasks or with other activities?

30. How well could you concentrate on the assigned tasks or required activities rather than on the mechanisms used to perform those tasks or activities?

31. Did you learn new techniques that enabled you to improve your performance?

32. Were you involved in the experimental task to the extent that you lost track of time?

0,45	6	2,7	CF
0,44	4	1,76	DF
0,44	4	1,76	DF, CF
0,51	6	3,06	DF
0,33	3	0,99	CF
0,41	4	1,64	

Tabela 4 - Questionário de Presença Utilizador 3

User Experience Questionnaire - Utilizador 1

<i>Question</i>	<i>fully agree with negative term (1)</i>	<i>answer(1-7)</i>	<i>fully agree with positive term (7)</i>	<i>answer (0-1)</i>	<i>Aspect</i>	<i>Factor</i>
1	annoying	4,00	enjoyable	0,17	Attractiveness	Emonional
2	bad	4,00	good	0,33	Attractiveness	Emonional
3	unlikable	5,00	pleasing	0,67	Attractiveness	Emonional
4	unpleasant	5,00	pleasent	0,67	Attractiveness	Emonional
5	unattractive	3,00	attractive	0,33	Attractiveness	Emonional
6	unfriendly	7,00	friendly	1,00	Attractiveness	Emonional
7	slow	6,00	fast	0,83	Efficiency	Pragmatic
8	inefficient	6,00	effient	0,83	Efficiency	Pragmatic
9	impractical	7,00	practical	0,67	Efficiency	Pragmatic
10	clusttered	6,00	organized	0,50	Efficiency	Pragmatic
11	not understandable	6,00	understandable	0,67	Perspiciuity	Pragmatic
12	dificult to learn	7,00	easy to learn	1,00	Perspiciuity	Pragmatic
13	complicated	7,00	easy	1,00	Perspiciuity	Pragmatic
14	confusing	7,00	clear	0,83	Perspiciuity	Pragmatic
15	unpredictable	2,00	predictable	0,17	Dependability	Pragmatic
16	obstructive	5,00	supportive	0,67	Dependability	Pragmatic
17	not secure	4,00	secure	0,50	Dependability	Pragmatic
18	does not meet expectations	2,00	meets expectations	0,17	Dependability	Pragmatic
19	inferior	3,00	valuable	0,00	Stimulation	Hedonic
20	boring	3,00	exciting	0,33	Stimulation	Hedonic
21	not interesting	2,00	interesting	0,17	Stimulation	Hedonic
22	demotivating	4,00	motivating	0,33	Stimulation	Hedonic
23	dull	2,00	creative	0,17	Novelty	Hedonic
24	conventional	3,00	inventive	0,17	Novelty	Hedonic
25	usual	1,00	leading edge	0,00	Novelty	Hedonic
26	conservative	1,00	innovative	0,00	Novelty	Hedonic

Tabela 5 –User Experience Questionnaire do Utilizador 1

User Experience Questionnaire - Utilizador 2

<i>Question</i>	<i>fully agree with negative term (1)</i>	<i>answer(1-7)</i>	<i>fully agree with positive term (7)</i>	<i>answer (0-1)</i>	<i>Aspect</i>	<i>Factor</i>
1	annoying	2,00	enjoyable	0,17	Attractiveness	Emonional
2	bad	3,00	good	0,33	Attractiveness	Emonional
3	unlikable	5,00	pleasing	0,67	Attractiveness	Emonional
4	unpleasant	5,00	pleasent	0,67	Attractiveness	Emonional
5	unattractive	3,00	attractive	0,33	Attractiveness	Emonional
6	unfriendly	7,00	friendly	1,00	Attractiveness	Emonional
7	slow	6,00	fast	0,83	Efficiency	Pragmatic
8	inefficient	6,00	effient	0,83	Efficiency	Pragmatic
9	impratical	5,00	practical	0,67	Efficiency	Pragmatic
10	clusttered	4,00	organized	0,50	Efficiency	Pragmatic
11	not understandable	5,00	understandable	0,67	Perspiciuity	Pragmatic
12	dificult to learn	7,00	easy to learn	1,00	Perspiciuity	Pragmatic
13	complicated	7,00	easy	1,00	Perspiciuity	Pragmatic
14	confusing	6,00	clear	0,83	Perspiciuity	Pragmatic
15	unpredictable	2,00	predictable	0,17	Dependability	Pragmatic
16	obstructive	5,00	supportive	0,67	Dependability	Pragmatic
17	not secure	4,00	secure	0,50	Dependability	Pragmatic
18	does not meet expectations	2,00	meets expectations	0,17	Dependability	Pragmatic
19	inferior	1,00	valuable	0,00	Stimulation	Hedonic
20	boring	3,00	exciting	0,33	Stimulation	Hedonic
21	not interesting	2,00	interesting	0,17	Stimulation	Hedonic
22	demotivating	3,00	motivating	0,33	Stimulation	Hedonic
23	dull	2,00	creative	0,17	Novelty	Hedonic
24	conventional	2,00	inventive	0,17	Novelty	Hedonic
25	usual	1,00	leading edge	0,00	Novelty	Hedonic
26	conservative	1,00	innovative	0,00	Novelty	Hedonic

Tabela 6 –User Experience Questionnaire do Utilizador 2

User Experience Questionnaire - Utilizador 3

<i>Question</i>	<i>fully agree with negative term (1)</i>	<i>answer(1-7)</i>	<i>fully agree with positive term (7)</i>	<i>answer (0-1)</i>	<i>Aspect</i>	<i>Factor</i>
1	annoying	5,00	enjoyable	0,17	Attractiveness	Emonional
2	bad	7,00	good	0,33	Attractiveness	Emonional
3	unlikable	7,00	pleasing	0,67	Attractiveness	Emonional
4	unpleasant	5,00	pleasent	0,67	Attractiveness	Emonional
5	unattractive	5,00	attractive	0,33	Attractiveness	Emonional
6	unfriendly	7,00	friendly	1,00	Attractiveness	Emonional
7	slow	4,00	fast	0,83	Efficiency	Pragmatic
8	inefficient	6,00	effient	0,83	Efficiency	Pragmatic
9	impractical	7,00	practical	0,67	Efficiency	Pragmatic
10	clusttered	6,00	organized	0,50	Efficiency	Pragmatic
11	not understandable	6,00	understandable	0,67	Perspiciuity	Pragmatic
12	dificult to learn	7,00	easy to learn	1,00	Perspiciuity	Pragmatic
13	complicated	5,00	easy	1,00	Perspiciuity	Pragmatic
14	confusing	5,00	clear	0,83	Perspiciuity	Pragmatic
15	unpredictable	2,00	predictable	0,17	Dependability	Pragmatic
16	obstructive	5,00	supportive	0,67	Dependability	Pragmatic
17	not secure	4,00	secure	0,50	Dependability	Pragmatic
18	does not meet expectations	2,00	meets expectations	0,17	Dependability	Pragmatic
19	inferior	3,00	valuable	0,00	Stimulation	Hedonic
20	boring	3,00	exciting	0,33	Stimulation	Hedonic
21	not interesting	6,00	interesting	0,17	Stimulation	Hedonic
22	demotivating	4,00	motivating	0,33	Stimulation	Hedonic
23	dull	6,00	creative	0,17	Novelty	Hedonic
24	conventional	4,00	inventive	0,17	Novelty	Hedonic
25	usual	1,00	leading edge	0,00	Novelty	Hedonic
26	conservative	1,00	innovative	0,00	Novelty	Hedonic

Tabela 7 –User Experience Questionnaire do Utilizador 1