Virtual Embodiment Questionnaire (VEQ) - English

References

The scale was published in the following publication, that can be used as a reference (citation) for the use of the scale in further studies:

D. Roth and M. E. Latoschik (2020), Construction of the Virtual Embodiment Questionnaire (VEQ), in *IEEE Transactions on Visualization and Computer Graphics*, doi: 10.1109/TVCG.2020.3023603.

Bibtex:

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@article{roth_veq_2020,
  author={D. {Roth} and M. E. {Latoschik}},
  journal={IEEE Transactions on Visualization and Computer Graphics},
  title={Construction of the Virtual Embodiment Questionnaire (VEQ)},
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  number={12},
  doi={10.1109/TVCG.2020.3023603},
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Predecessor

Roth, D., Lugrin, J. L., Latoschik, M. E., & Huber, S. (2017, May). Alpha IVBO-construction of a scale to measure the illusion of virtual body ownership. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (pp. 2875-2883). ACM.

Instructions

Please read each statement and check the relevant response to indicate how strongly you agree or disagree with each statement (1 through 7). There are no right or wrong answers. Answer spontaneously and intuitively.

Acceptance/Body Ownership	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	1	2	3	4	5	6	7
AC1 myBody It felt like the virtual body was my body.	o	o	o	o	o	o	o
AC2 myBodyParts It felt like the virtual body parts were my body parts.	o	o	o	o	o	o	o
AC3 humanness The virtual body felt like a human body.	o	o	o	o	o	o	o
AC4 belongsToMe It felt like the virtual body belonged to me.	o	o	o	o	o	o	o

Control/Agency	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	1	2	3	4	5	6	7
CO1 myMovements The movements of the virtual body felt like they were my movements.	o	o	o	o	o	o	o
CO2 controlMovements I felt like I was controlling the movements of the virtual body.	o	o	o	o	o	o	o
CO3 causeMovements I felt like I was causing the movements of the virtual body.	o	o	o	o	o	o	o
CO4 syncMovements The movements of the virtual body were in sync with my own movements.	o	o	o	o	o	o	o

Change	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	1	2	3	4	5	6	7
CH1 myBodyChange I felt like the form or appearance of my own body had changed.	o	o	o	o	o	o	o
CH2 echoHeavyLight I felt like the weight of my own body had changed.	o	o	o	o	o	o	o
CH3 echoTallSmall I felt like the size (height) of my own body had changed.	o	o	o	o	o	o	o
CH4 echoLargeThin I felt like the width of my own body had changed.	o	o	o	o	o	o	o

Scoring process

Acceptance (Ownership) = (AC1 + AC2 +AC3 + AC4)/4

Control (Agency) = (CO1+ CO2 + CO3 + CO4)/4

Change = (CH1 + CH2 + CH3 + CH4)/4

Method

The scale measures virtual embodiment based on the factors Acceptance (ownership), Control (agency), and Change (perceived change in the body scheme). The scale should be measured immediately after exposure/induction of virtual embodiment. A 0-6-point scale can be used instead of the 1-7-point scale.

Additional items (excluded through CFA)
AGX1 bodyControlEnjoyment (AG)
I enjoyed controlling the virtual body.
VOX1 ownOtherBody (BO)
I had the illusion of owning a different body to my own.
CHX1 myBodyCheck (CH)
I felt like I had to check that my own body still looked like I remembered.
VOX2 belongsOtherPerson (BO*)
I felt like the virtual body belonged to someone else. *(recoded)

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