Contribution ID: **609**   Type: **Poster**

User Experience Questionnaire for Virtual Reality Applications in Healthcare (UXVR-H): Development of a New Assessment Tool

Thursday, September 11, 2025 2:10 PM (20 minutes)

Virtual reality (VR) integration in healthcare has demonstrated significant therapeutic potential, improving treatment adherence, accessibility, and clinical effectiveness. While self-report questionnaires remain the preferred method for user experience (UX) assessment due to their psychometric properties and efficiency, existing instruments present significant methodological limitations when applied to VR contexts, having been designed for conventional two-dimensional interfaces.

To address this gap, we developed a targeted questionnaire through a systematic multi-method approach. A comprehensive literature review identified eight critical dimensions for VR UX evaluation, that we have declined in an initial pool of 271 potential items. Content validation involved 112 older adults assessing item comprehensibility across 14 groups, with particular attention to syntactic clarity and terminological complexity. Eight independent judges then provided qualitative judgments on theoretical conceptualization, quantitative assessments of each item's relevance using a 3-point Likert scale, and blind classification of dimensional affiliation to verify content validity. Items receiving a relevance rating of 1 were eliminated, as were those misclassified dimensionally by multiple judges. We retained items rated 3 by at least half the judges with no ratings below 2.

This iterative process resulted in a 24-item instrument rated on a 5-point Likert scale Base on the agree or disagree with each statement (from 1 = Not at all to 5 = Extremely).

The developed instrument represents a significant advancement in UX assessment methodology for healthcare VR applications. Future research will focus on psychometric validation through confirmatory factor analysis to empirically verify the hypothesized dimensional structure and establish the instrument's psychometric properties.

If you're submitting a symposium talk, what's the symposium title?

If you're submitting a symposium, or a talk that is part of a symposium, is this a junior symposium?

Primary authors: Prof. PEDROLI, Elisa (eCampus University);   BRUNI, Francesca (eCampus University)

Presenter: BRUNI, Francesca (eCampus University)

Session Classification: Lunch and poster 1

Track Classification: Methodology