Questionnaire for User Interface Satisfaction (QUIS)

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HP Activity Categories: 
Assessment of Acceptance [1]
Resource Type:
Tool

Abstract:

The Questionnaire for User Interaction Satisfaction (QUIS) is a measurement tool designed to assess a computer user's subjective satisfaction with the human-computer interface.

The QUIS contains a demographic questionnaire, a measure of overall system satisfaction, and a measure of specific interface factors such as screen visibility, terminology and system information, learning factors, and system capabilities.

QUIS has pen and paper and PC software versions for administration. Operators use a 10-point scale to rate 21 items that relating to the system's usability. These ratings produce data for the overall reaction to a system's usability on 6 factors. It is easy to use and analyse.

References

Developer and source:

Chin et al, 1988

Development of a Tool Measuring User Satisfaction of the Human-Computer Interface

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Version 7 of the QUIS is available from the Office of Technology Commercialization

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General Description

Purpose:

The Questionnaire for User Interaction Satisfaction (QUIS) is a usability testing tool designed to gauge computer user's subjective satisfaction with the computer interface. QUIS measures attitude towards eleven interface factors (screen factors, terminology and system feedback, learning factors, system capabilities, technical manuals, on-line tutorials, multimedia, voice recognition, virtual environments, internet access, and software installation).

Type (e.g. observation, questionnaire, interview, checklist, measurement instrument, etc.):

Questionnaire

Technical description of method or tool etc

Description of the content/study:

QUIS, version 7.0

The Questionnaire for User Interaction Satisfaction (QUIS) is a tool developed by a multi-disciplinary team of researchers in the Human-Computer Interaction Lab (HCIL) at the University of Maryland at College Park. The QUIS was designed to assess users’ subjective satisfaction with specific aspects of the human-computer interface. The QUIS team successfully addressed the reliability and validity problems found in other satisfaction measures, creating a measure that is highly reliable across many types of interfaces.

The QUIS 7.0 is the current version. It contains a demographic questionnaire, a measure of overall system satisfaction along six scales, and hierarchically organized measures of nine specific interface factors (screen factors, terminology and system feedback, learning factors, system capabilities, technical manuals, on-line tutorials, multimedia, teleconferencing, and software installation). Each area measures the users’ overall satisfaction with that facet of the interface, as well as the factors that make up that facet, on a 10-point scale. The questionnaire is designed to be configured according to the needs of each interface analysis by including only the sections that are of interest to the user.

In addition to English, the QUIS 7.0 is currently available in the following languages: German, Italian, Portuguese (Brazilian), and Spanish.

Examples of the specific satisfaction scale questions. Note, that the first six scales are polar opposites with no statements.
OVERALL REACTIONS TO THE SOFTWARE

terrible 0 1 2 3 4 5 6 7 8 9 wonderful
difficult 0 1 2 3 4 5 6 7 8 9 easy
frustrating 0 1 2 3 4 5 6 7 8 9 satisfying
inadequate power 0 1 2 3 4 5 6 7 8 9 adequate power
dull 0 1 2 3 4 5 6 7 8 9 stimulating
rigid 0 1 2 3 4 5 6 7 8 9 flexible

SCREEN

Characters on the computer screen
hard to read 0 1 2 3 4 5 6 7 8 9 easy to read
Highlighting on the screen simplifies task
not at all 0 1 2 3 4 5 6 7 8 9 very much
Organization of information on screen
confusing 0 1 2 3 4 5 6 7 8 9 very clear
Sequence of screens
confusing 0 1 2 3 4 5 6 7 8 9 very clear

TERMINOLOGY AND SYSTEM INFORMATION

Use of terms throughout system
inconsistent 0 1 2 3 4 5 6 7 8 9 consistent
Computer terminology is related to the task you are doing
never 0 1 2 3 4 5 6 7 8 9 always
Position of messages on screen
inconsistent 0 1 2 3 4 5 6 7 8 9 consistent
Messages on screen which prompt user for input
confusing 0 1 2 3 4 5 6 7 8 9 clear
Computer keeps you informed about what it is doing
never 0 1 2 3 4 5 6 7 8 9 always

Error messages
unhelpful 0 1 2 3 4 5 6 7 8 9 helpful

LEARNING

Learning to operate the system
difficult 0 1 2 3 4 5 6 7 8 9 easy

Exploring new features by trial and error
difficult 0 1 2 3 4 5 6 7 8 9 easy

Remembering names and use of commands
difficult 0 1 2 3 4 5 6 7 8 9 easy

Tasks can be performed in a straight-forward manner
never 0 1 2 3 4 5 6 7 8 9 always

Help messages on the screen
unhelpful 0 1 2 3 4 5 6 7 8 9 helpful

Supplemental reference materials
confusing 0 1 2 3 4 5 6 7 8 9 clear

SYSTEM CAPABILITIES

System speed
too slow 0 1 2 3 4 5 6 7 8 9 fast enough

System reliability
unreliable 0 1 2 3 4 5 6 7 8 9 reliable

System tends to be
noisy 0 1 2 3 4 5 6 7 8 9 quiet

Correcting your mistakes
difficult 0 1 2 3 4 5 6 7 8 9 easy

Experienced and inexperienced users' needs are taken into consideration
never 0 1 2 3 4 5 6 7 8 9 always

USABILITY AND USER INTERFACE

Use of colors and sounds
poor 0 1 2 3 4 5 6 7 8 9 good
System feedback

poor 0 1 2 3 4 5 6 7 8 9 good

System response to errors

awkward 0 1 2 3 4 5 6 7 8 9 gracious

System messages and reports

poor 0 1 2 3 4 5 6 7 8 9 good

System clutter and UI ?noise?

poor 0 1 2 3 4 5 6 7 8 9 good

Technical requirements for using the method, tool, etc:

The commercial version of QUIS includes

- A word processor document containing all the sections of the questionnaire which can be edited to meet the user's specific needs.
- A single or site version of the questionnaire implemented in HTML. This version can be used on a number of Web browsers.
- A selection of relevant papers detailing the validation of the QUIS and some of its uses.

The QUIS 7.0 will run on any platform that supports a full implementation of JavaScript.

Measure/Response Type:

Answers are on a ten-point scale.

Results obtained and interpretation:

The results give an indication of the satisfaction of the user with each facet of the interface that is of interest to the researcher. Analysis of responses describes the assessment of overall reaction to the system, evaluation of the screen presentation, the terminology and system information provided, learning the system, and system capabilities.

The following link provides notes on how to analyse data further, [http://lap.umd.edu/quis/QuantQUIS.htm](http://lap.umd.edu/quis/QuantQUIS.htm) [4]

**Evaluation**

Advantages:

Easily administered, Adaptable to researchers needs

Disadvantages:

None

Alternative Methods:
CARS

**Usability (ease of use, efficiency, effectiveness)**

Ease of use:
- high

Efficiency:
- high

Effectiveness:
- high

Constraints concerning conditions of use:

The QUIS should be completed following use of the user interface in question.

Reliability:

High reliability is reported by the authors but this has not been verified.

Validity:

Validity information is available within the commercially available product.

Required effort (to conduct & to analyse):

The administration and analyses are automated and require low effort.

**Level of HF expertise needed (required user qualification)**

Low: little expertise/ training required

Other expertise needed (required user qualification):

None

**Cost Information**

The QUIS is available from the University of Maryland Office of Technology Commercialization (http://www.otc.umd.edu/ [5]) for unlimited use at one site. Short and long paper versions are available as well as online versions that run in Windows and Macintosh environments, and in HTML. Licensing fees for paper/web version are as follows:

- Commercial License $750
- Academic / Non-profit License $200
- Student License $50

Low: (<1000 €) low costs to purchase, no special devices necessary

Experiences of use by SESAR partners (including references):
QUIS is a measurement tool designed to assess a computer user's subjective satisfaction with the human-computer interface. It contains a demographic questionnaire, a measure of overall system satisfaction, and a measure of specific interface factors such as screen visibility, terminology and system information, learning factors, and system capabilities.