Measuring Fun – usability testing for children

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This paper considers the ways in which fun can be defined, measured and justified as a reliable usability measure for the evaluation of interfaces for young children. Children differ significantly from adults in their cognitive and perceptual skills, suggesting that evaluation techniques which work for adults, may not work as well for children. Measures of effectiveness and efficiency are likely to need some modifications, and following general guidelines such as those in (Hanna et al., 1997) will ensure that the needs of the children are considered throughout the test. This study focuses on satisfaction measures which may be used with children.

Satisfaction and Fun

Adults have become used to the idea of 'satisfaction'; it is a concept which they can relate to, suggesting that things are okay. This 'okayness' can be measured by observations and questionnaires. It is not surprising that 'Very satisfied' is used on Likert scales to refer to the best that one can get. As adults, we use the word fun cautiously, almost apologetically, believing it to be something we ought not to have. Watching children in a school classroom, it soon becomes evident that 'satisfaction' is not a good enough word for what they are experiencing. Fun is something that children know about; they are experts. They experience it; therefore they can talk about it, describing it as excitement, play, laughter, and feeling good.

Fun Attributes

We wanted to measure the responses of children aged between 6 and 10 to a range of novel interfaces for text entry. It was decided to focus on three key 'Fun attributes'; these were defined as, expectations, engagement and endurability.

To measure expectations a repertory grid test (Fransella and Bannister, 1977) was used before and after the activity. This used pictures, and enabled us to measure the effect the activity had on the child's prior and subsequent perception of it. This also enabled us to establish how much desire there was on the part of the children to return to this task. During the task, observations of facial expressions, utterances and body language were used to establish a measure for engagement, and after the task, the children themselves were asked to rate the interface using a Likert type scale as developed by (Risden et al., 1997), using a smiley face vertical funmeter. A week after the task, children were asked to recall the activity. It was hoped that this would give some indication of how memorable the activity had been. This gave an endurability score which was a measure of the impact of the experience. It was noted that children were likely to remember both a very good and a very bad experience, and this was taken into account.

Having established this test mechanism, we are now investigating how the three fun attributes correlate with the child's own measure of fun as registered on the funmeter.

References

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