The User Experience
Systems for interpreter training

Dr. Jonathan C. Roberts & Panagiotis Ritsos
SCHOOL OF COMPUTER SCIENCE, BANGOR, UK
j.c.roberts@bangor.ac.uk
@jcrbrts

EVIVA has been co-funded by the European Commission. This presentation reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
What are the objectives?

To discover persons’ behaviors, attitudes and emotions about the interpreter tools.

Perceptions of system aspects such as utility, ease of use and efficiency

The international standard on ergonomics of human system interaction, ISO 9241-210

Three factors

1. The system,
2. The user and
3. The context of use.
What systems?

**Prepared content**
- **Backbone** (video corpus)
- **IVY practice mode** (audio + 3d avatars)

**Role Play**
- **IVY live mode** (3d avatars)
- **Google Hangout** (video conferencing)
How to evaluate – the User Experience Questionnaire
http://ueq-online.org/

The UEQ allows quick assessment of the user experience of interactive products.

Users express feelings, impressions, and attitudes that arise when they use a product.

User Experience Questionnaire
Likert scale (1..7) over 6 dimensions
<table>
<thead>
<tr>
<th>Appearance</th>
<th>Design quality</th>
<th>Use quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractiveness</td>
<td>Stimulation</td>
<td>Perspicuity</td>
</tr>
<tr>
<td>Overall impression of the product. Do users like or dislike it?</td>
<td>Is it exciting and motivating to use the product?</td>
<td>Is it easy to get familiar with the product?</td>
</tr>
<tr>
<td>Novelty</td>
<td>Efficiency</td>
<td>Dependability</td>
</tr>
<tr>
<td>Is the product innovative and creative?</td>
<td>Can users solve their tasks with the product without unnecessary effort?</td>
<td>Does the user feel in control of the interaction?</td>
</tr>
</tbody>
</table>
**Appearance**

**Attractiveness**
- annoying / enjoyable
- good / bad
- unlikable / pleasing
- unpleasant / pleasant
- attractive / unattractive
- friendly / unfriendly

**Design quality**

**Stimulation**
- valuable / inferior
- boring / exiting
- not interesting / interesting
- motivating / demotivating

**Novelty**
- creative / dull
- inventive / conventional
- usual / leading edge
- conservative / innovative

**Use quality**

**Perspicuity**
- not understandable / understandable
- easy to learn / difficult to learn
- complicated / easy
- clear / confusing

**Efficiency**
- fast / slow
- inefficient / efficient
- impractical / practical
- organized / cluttered

**Dependability**
- unpredictable / predictable
- obstructive / supportive
- secure / not secure
- meets expectations / does not
Instructions – Rate the environment ‘quickly’

“Please decide **spontaneously**. Don’t think too long about your decision to make sure you convey your original impression.”

“Sometimes you may be unsure… but please tick a box in every line”

“It is your personal **opinion** that counts. Please remember there is no wrong or right answer!”

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>annoying</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not understandable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>creative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>easy to learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>boring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unpredictable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inventive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>obstructive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>complicated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unlikely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>usual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unpleasant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>secure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>motivating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>meets expectations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inefficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>clear</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>impractical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>organized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>attractive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>friendly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>conservative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example from a student on Backbone
Understanding the results

- **Excellent to Bad** scales

- Users make different judgments for different categories.

- So, results are scaled from a benchmark.
  - Benchmark created by Lugwitz08, Hinderiks2010.
  - 4818 people, from 163 studies of different products
  - Business software, web pages, social networks etc.

Example result: shows average mean and Benchmark ranges


Our process, then results

1. Instructions given
2. Task undertaken (students observed and videoed)
3. Participants complete demographic questions
4. Participants complete UEQ
5. Participants reflected on their work.

<table>
<thead>
<tr>
<th>Prepared Content</th>
<th>Role Play</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univ. Surrey, UK</td>
<td>IVY Practice Backbone</td>
</tr>
<tr>
<td>AMU, Poznań</td>
<td>✔</td>
</tr>
<tr>
<td>UCY, Cyprus</td>
<td>✔</td>
</tr>
</tbody>
</table>
Backbone

**Highlights**

- Easy to learn, Fast,
- Secure, Meets expectation
- Clear, friendly, efficient
- Video corpus is dependable.
- People know what to do.
- Not so leading-edge, **but**
  - dependable,
  - Efficient,
  - easy to learn,
Highlights

- Every dimension excellent or good
  - Enjoyable, understandable
  - Pleasing, easy to learn
  - Attractive
- Innovative, leading-edge, exciting
IVY live mode

Highlights

• Pleasant, valuable, interesting
• “Above average” in all dimensions,
  – especially higher in attractiveness and novelty (e.g., creative, inventive).
• More negatives:
  – slower, unpredictable, valuable, confusing
Video conferencing

Highlights

• Easy to learn, valuable, fast, meets-expectations, friendly
• Familiar, conventional, practical, organized

http://commons.wikimedia.org/wiki/File:Google_hangouts_on_android.png
In summary

- Users found all tools usable.
- Users have different experiences with different tools.
- All tools have results above “average”.
  - In comparison with benchmarks.
- Participants responses are positive and highlight the good craft of the different tools.
- The UEQ is only one part in the evaluation toolkit.
- Still more work to be done – more evaluation to be achieved.

Each tool has been enjoyable to use, participants had good experiences.

**Backbone and Video Conferencing** tools are more familiar, so are more usable, convenient, quick to learn etc.

**IVY Live mode and IVY practice mode** are more exciting, novel, creative, motivating, interesting to use.
User Experience
Systems for interpreter training

Dr. Jonathan C. Roberts & Panagiotis Ritsos
SCHOOL OF COMPUTER SCIENCE, BANGOR, UK
j.c.roberts@bangor.ac.uk
@jcrbrts