The Cognitive Jogthrough: A Fast-Paced User Interface Evaluation Procedure

by
David E. Rowley and David G. Rhoades

Presented by:
Paul Nguyen
March 25, 1999

Presentation Topics

1. Background
2. User Interface (UI) Evaluation Goals
3. Cognitive Walkthrough Procedure
4. Cognitive Walkthrough Results
5. Cognitive Jogthrough Procedure
6. Results: Walkthrough vs. Jogthrough
7. Conclusions
Background

- Product is PC-based chromatography workstation
- Product involves heavy user interaction
- UI evaluation team consists of:
  * UI Designers
  * Software Engineers
  * In-House "Users"
- No User Interface specialist
- Primary concern: Functionality
- Secondary concern: Usability

Evaluation Goals

- UI problems discovered immediately
- Suitable for evaluators with little understanding of application
- Suitable for users with little understanding of evaluation techniques
- Thorough UI review… but able to skip unneeded areas
- Documentation does not impede evaluation
Cognitive Walkthrough
Procedure

1. Presenter
   * Describes task and preferred path to goal

2. Evaluator
   * Answers evaluation questions on steps taken to fulfill goal

3. Recorder
   * Writes down each step of walkthrough

4. Moderator
   * Keeps discussion relevant to task

Cognitive Walkthrough
Results
During the 90 minute session:
• Only 10 actions covered
  \textit{Problem}: Small portion of intended task
• Waiting for Recorder to catch up to discussion
  \textit{Problem}: Slow pace
  Interrupts discussion flow
• Suppression of design discussion
  \textit{Problem}: New system design ideas not heard
• Participants frustrated with process
  \textit{Problem}: Unwilling to continue
Cognitive Jogthrough Procedure

- Record the session with:
  1) Videotape
  2) Test logging software
- Allow relevant design discussion
- Otherwise, same procedure as Walkthrough

Results
Walkthrough vs. Jogthrough

<table>
<thead>
<tr>
<th></th>
<th>Walkthrough</th>
<th>Jogthrough</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Actions</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Evaluators' participation</td>
<td>Subdued</td>
<td>Active</td>
</tr>
<tr>
<td>Design discussion</td>
<td>Suppressed</td>
<td>Encouraged</td>
</tr>
<tr>
<td>Procedure's pace</td>
<td>Slow</td>
<td>Quick</td>
</tr>
<tr>
<td>Participants' attitudes</td>
<td>Frustration</td>
<td>Accomplishment</td>
</tr>
<tr>
<td>Willingness to continue</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Conclusions (1)

Jogthrough Advantages
• Meets needs of specific team
• Gives tangible results to team
• Generates positive attitudes in participants

* Recommended for product development teams where UI design and evaluation is secondary concern

Conclusions (2)

Jogthrough Disadvantages
• No research
• No validation
• No procedural standards

* No claims on validity and applicability to general UI evaluations