Unmoderated Pretesting

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BLS

FedCASIC 2012
Unmoderated Pretesting (Remote Usability Testing)

- Conducted at participants’ home, using their computer, at their convenience
- Video captures participants’ computer screen and voice as they work through a series of tasks
- Typically used to evaluate a website, but can also be used for any online stimuli
  - Participants given a site and a series of tasks or instructions
  - Usually asked to think aloud as they work
One of several companies offering this service

Found them easy to work with

- Responsive customer service
- Willing to replace ‘bad’ participants quickly
- Participant panel with range of demographics

Limited experience with other companies
Unmoderated Usability Testing
Testing Objectives

- Online Occupational Outlook Handbook undergoing a redesign
- Content layouts already tested
- Determine initial reactions to:
  - alternative home pages
  - landing pages
- Evaluate navigation strategies from home page
Global Evaluation Strategy

1. In-house usability testing (14 tasks)
2. Online, unmoderated usability testing (5 tasks)
3. Structured discussion groups with career counselors (two separate)
   - Advance access to prototypes
   - Encouraged to try them out
   - Walk through, demonstration, and discussion
For hundreds of occupations—such as teacher, lawyer, and nurse—the Occupational Outlook Handbook tells you what workers do on the job, work environment, the training and education needed, pay, and job outlook.

**OCCUPATION GROUPS**

- Architecture and Engineering
- Arts and Design
- Building and Grounds Cleaning
- Business and Financial
- Community and Social Service
- Computer and Information Technology
- Construction and Extraction
- Education
- Entertainment and Sports
- Farming, Fishing and Forestry
- Food Preparation and Serving
- Healthcare
- Installation, Maintenance and Repair
- Legal
- Life, Physical and Social Science
- Management
- Math
- Media and Communication
- Military
- Office and Administrative Support
- Personal Care and Service
- Production
- Protective Service
- Sales

**FEATURED OCCUPATION**

*Chefs*, head cooks, food preparation and serving supervisors oversee the daily food service operation of a restaurant or other food service establishment.
For hundreds of occupations—such as teacher, lawyer, and nurse—the Occupational Outlook Handbook tells you what workers do on the job, work environment, the training and education needed, pay, and job outlook.
# Healthcare Occupations

Use arrows at the top of each column to sort alphabetically or numerically. Click on an occupation to see the full profile.

$36,500 is the average 2008 pay for all occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percent Change in Employment, projected 2010–20</th>
<th>2008 Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech-language pathologists</td>
<td>72%</td>
<td>$91,239</td>
</tr>
<tr>
<td>Athletic trainers</td>
<td>70%</td>
<td>$115,648</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>64%</td>
<td>$26,849</td>
</tr>
<tr>
<td>Veterinarians</td>
<td>62%</td>
<td>$82,066</td>
</tr>
<tr>
<td>Respiratory therapists</td>
<td>58%</td>
<td>$27,715</td>
</tr>
<tr>
<td>Medical records and health information technicians</td>
<td>55%</td>
<td>$29,920</td>
</tr>
<tr>
<td>Veterinary technologists and technicians</td>
<td>52%</td>
<td>$116,671</td>
</tr>
<tr>
<td>Surgical technologists</td>
<td>49%</td>
<td>$82,869</td>
</tr>
<tr>
<td>Cardiovascular technologists and technicians</td>
<td>46%</td>
<td>$95,332</td>
</tr>
</tbody>
</table>
Healthcare Occupations

Occupations sorted in alphabetical order. Click on an occupation to see the full profile.

**ATHLETIC TRAINERS**

**AUDIOLOGISTS**

**CARDIOVASCULAR TECHNOLOGISTS AND TECHNICIANS**

**CHIROPRACTORS**
Pay 2010: $37,855 (May 2008)
## Healthcare Occupations

Use arrows at the top of each column to sort alphabetically or numerically. Click on an occupation to see the full profile.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Job Summary</th>
<th>Education</th>
<th>2008 Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic trainers</td>
<td>Evaluate, advise, and treat athletes to assist recovery from injury, avoid injury, or maintain peak physical fitness.</td>
<td>Associate degree</td>
<td>$29,470 per year $9.82 per hour</td>
</tr>
<tr>
<td>Audiologists</td>
<td>Assess and treat persons with hearing and related disorders. May fit hearing aids and provide auditory training. May perform research related to hearing problems.</td>
<td>Doctoral or professional degree</td>
<td>$62,030 per year $29.82 per hour</td>
</tr>
<tr>
<td>Cardiovascular technologists and technicians</td>
<td>Conduct tests on pulmonary or cardiovascular systems of patients for diagnostic purposes. May conduct or assist in electrocardiograms, cardiac catheterizations, pulmonary-functions, lung capacity, and similar tests.</td>
<td>Associate degree</td>
<td>$47,010 per year $22.60 per hour</td>
</tr>
<tr>
<td>Chiropractors</td>
<td>Adjust spinal column and other articulations of the body to correct abnormalities of the human body believed to be caused by interference with the nervous system. Examine patient to determine nature and extent of disorder. Manipulate spine or other involved area.</td>
<td>Doctoral or professional degree</td>
<td>$66,490 per year $31.97 per hour</td>
</tr>
</tbody>
</table>
SAMPLE VIDEO
Key Results from Online Testing

- Extensive, useful first impressions
- Excellent ‘talk aloud’ feedback on screen features, especially concerning navigation and functionality
- Observed key differences in approaches employed by users with different computer experience
## Participant Characteristics (7)

<table>
<thead>
<tr>
<th>Asked for</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any gender</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asked for</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any age</td>
<td>23-33</td>
<td>27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asked for</th>
<th>Working outside office</th>
<th>Working in office</th>
<th>Working at home</th>
<th>In school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any employment type</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
### Participant Characteristics (7)

<table>
<thead>
<tr>
<th>Asked for</th>
<th>High School</th>
<th>College</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any education level</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asked for</th>
<th>Beginner to Intermediate</th>
<th>Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any level of computer experience</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Unmoderated Survey Pretesting
Testing Objectives

- Pretesting of global clothing questions
- Collect standard cognitive interview-type information from a large number of participants
  - Response strategies
  - Inclusion examples
  - Exclusion examples
  - Data for comparison/detailed questions
Testing Strategy

- In-house cognitive interviews (n=19)
- Online, unmoderated pretesting (n=57)
- Both modes used the same tasks
  - Think aloud: “Now, please describe out loud how you arrived at your answer for question 2. Explain what you thought about or what you remembered as you answered the question.”
  - Creating example lists
  - Answering comparison survey questions
- Online participants also categorized items
Participants

- All participants screened: “Have you purchased clothing in the past month”
- All participants from the US (TryMyUI also has participants from the UK & Canada)
- Nine test groups created, based on:
  - Gender
  - Age (18 – 34, 35 – 54, 55+)
  - Education (HS or less, some college or college degree)
- Trouble recruiting male participants over 55
Results

- Participants completed all tasks successfully
- Participants were able to give useful “think aloud” responses to probe
- Differential quality between participants
  - Some were excellent
  - Some would have benefited from interviewer probing
    - Got off topic
    - Didn’t follow instructions
SAMPLE VIDEO
Mode Differences

- Web results were comparable to cognitive interviews results
- Participants in both modes were able to:
  - Articulate response strategy
  - Complete all tasks
  - Provide valuable information to answer research questions
- Full results to be presented at AAPOR 2012
Conclusions
Overall Advantages

- Ease of recruiting
- High quality video recordings that can be shared
- Very competitive pricing
  - Approximately $27 per participant (bulk discounts available)
  - Compared with $43 per participant in standard lab study
- Timeliness of results
Overall Advantages (cn’t)

- Excellent use of “think aloud”
- Written feedback from participants
- Corroborated in-house results
- Can rate participants
## Advantages

### Survey Pretesting

<table>
<thead>
<tr>
<th>Task</th>
<th>Cognitive Interviews</th>
<th>Unmoderated Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requesting participants</td>
<td>20 min; explaining criteria to recruiter</td>
<td>30 min; specifying test groups and criteria</td>
</tr>
<tr>
<td>Screening</td>
<td>10 min/participant</td>
<td>0 minutes; done by TryMyUI</td>
</tr>
<tr>
<td>Scheduling</td>
<td>15 min/participant</td>
<td>0 minutes; study done at participant convenience</td>
</tr>
<tr>
<td>Preparing for interviews</td>
<td>10 min/participant</td>
<td>60 minutes total; setting up web survey and tasks</td>
</tr>
<tr>
<td>Conducting interviews</td>
<td>45 min/participant</td>
<td>0 min, self-administered</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31.67 hours</strong></td>
<td><strong>1.5 hours</strong></td>
</tr>
<tr>
<td>Data collection</td>
<td>3 weeks</td>
<td>All videos within 3 days</td>
</tr>
</tbody>
</table>
Disadvantages

- Limited to 20 minutes
- Tasks must flow logically from one to another
- Instructions must be clear and precise
- No automated measures of time-on-task or success
Disadvantages
Usability Testing

- Cannot correct navigation errors (need fallback instruction)
- Could not compare alternative versions in same session (lack of time, too difficult to control)
- Can specify selection criteria, but no guarantee you’ll get what you want
Disadvantages
Survey Pretesting

- Cannot provide probes to follow up on participants’ comments
  - All probes must be scripted and therefore must be applicable to all participants
- No way to bring a participant ‘back on track’ if they start to digress during their “think aloud”
Conclusions

- Promising approach to collect pretesting information from large samples quickly and easily
- Useful “think aloud” information valuable for different types of pretesting
- Probably best used in conjunction with standard lab methods