Beyond Counting Hits:
Strategies for Evaluating ISE Websites

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Overview

A full-day workshop in 75 minutes
• Website Design Considerations
• Formative Evaluation
• Outcome / Impact Studies
• Recruiting
• Issues to Consider
• Resources

Website Design Considerations

• Target population (user profiles)
• Characteristics of use (context)
• Differentiated users and outcomes
• Concrete/observable user goals
• Concept development & testing
Hope is not a strategy.

- Thomas Molnerney

Formative Assessment

- Iterative Design: Make changes on the fly
- Concept Testing (Focus Groups, Surveys, etc.)
- Rapid Prototyping - Paper Mock-Up
  Usability Tests
- Beta Tests
- Usability / Navigation
- Heuristic evaluation

Formative Assessment: Usability/Navigation

- Think-alouds
- Task completion
- Appeal / Attitude
- Comprehension
- Reading level
- Universal Design

→ Center for Applied Special Technology: http://www.cast.org/
Of course it works in practice,
But will it work in theory?

- French Research Saying

Formative Assessment: Heuristic Evaluation

- Content or Web Usability Experts
- Establish set of guiding questions or evaluation rubric (e.g., consistency and standards, error handling, etc.)
- Cheaper and quicker than full blown user testing
- Can help to focus future research efforts on most important elements

True friends stab you in the front.

- Oscar Wilde
Usability = Can they do it?

Impact = Do they do it?
And with what effect?

Outcome Assessment Methods

- Web log analysis
- User surveys
- User interviews/focus groups
- Content analysis of user-generated materials
- Institutional data analysis
- Assessments of learning
- Offsite actions
- Web-usage diaries

If we knew what we were doing, it wouldn’t be called research would it?

- Albert Einstein
Outcome Assessment: Web Log Analysis

- Numbers:
  - Total hits vs. unique IP addresses
  - Daily, weekly, monthly (etc.) traffic
  - Repeat visitors
  - Downloads (streaming, RSS sign ups)
- How long do users stay online? (stickiness)
- What pages/activities are used or done? (depth)
- What path do users take through the site?
- What site do users link from?

You might get something that looks like this:

```
209.240.221.71 - - [03/Jan/2001:15:20:06 -0800] "GET /Inauguration.htm HTTP/1.0"
200 8788 "http://www.democrats.com/"
"Mozilla/3.0 WebTV/1.2 (compatible; MSIE 2.0)
```

Here’s what it means:


Outcome Assessment: User Surveys

Types of user surveys:
- Email invitation (e.g., site component analysis)
- Registration
- Real-world user intercepts
- Pop-ups
- Self-selected surveys on the site

Tips:
- Think creatively about recruitment
- Offer incentives

Things you can find with surveys:
- User demographics
- User attitudes or beliefs
- Related behaviors or experiences
- Users’ wants and needs
- Where else they go
**Outcome Assessment: User Focus Groups**

- **Face-to-Face vs. Virtual**
  - Discussion Topics:
    - Interest in concept/general appeal
    - Language issues/comprehension
    - Usability/functionality
    - Engagement/interactivity
    - Current/potential uses

- **Tips**:
  - Audience Considerations (language, content, etc.)
  - Establish Ground Rules
  - Consider exercises that give people the ability to respond individually

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**Outcome Assessment: User-Generated Materials**

- **Examples**:
  - User submissions
  - Chat log or discussion forum transcripts

- **Analysis**:
  - Content analysis (rubric)
  - Peer or expert critique
  - Look for themes linked to objectives
  - Get ideas for further site development

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*You can go a long way with a smile. You can go a lot farther with a smile and a gun.*

- Al Capone
Outcome Assessment: Institutional Data

Use the data you already have!

Examples:
• TV Ratings
• # Call-in or write-in messages
• Gate Count
• Membership numbers
• Gift-shop purchases linked to content
• Registration
• Downloads
• Donations

Outcome Assessment: Assessment of Learning

Types:
• Integrated assessments (quizes or games)
• Linked/referred assessments
• Third party assessment

Analysis:
• Content, social, and procedural knowledge
• Transfer

Outcome Assessment: Off Site Actions

What:
• Behavioral Change: Engage in activities/with others
• Remember/Recall information

How:
• short vs. long-term studies (immediate vs. delayed)
• Public participation
• Purchase decisions
Outcome Assessment: Web Usage Diaries

What:
- Looking for patterns,
- lasting impressions,
- unique experiences,
- Factors that influence use

How:
- Offer incentives
- Daily, weekly or periodic questions -> online
- Reminders!

Do not let what you cannot do interfere with what you can do.
- John Wooden

Logistical Issues
- Legal stuff: (IRB approvals, Human Subjects, informed consent)
- Recruitment:
  - Incentives
  - Sources for contacts (schools, colleges, afterschool programs, clubs, churches, kids of employees, Craig’s list)
  - Variety of abilities and levels of experience, maturity, etc. reading ability, technology skills and comfort level
- Sampling
Other Considerations

• Significant treatment (do you have one?)
• No silver bullet, no one solution for all
• No single strategy (triangulation)
• Timing (staged and iterative)
• External and/or internal evaluator
• Targeted vs. realized audience
• Critical competitors
• Budgeted activity

Resources

General:
Observing the User Experience. - Mike Kuniavsky (2003)

Children:
• Usability of Websites for Children: 70 Design Guidelines. - Glitz and Nielsen (2002)
• Guidelines for Usability Testing with Children - Hennes, Radan, and Alexander (1997)
• CHI-Kids listserv subscription and message archive (sponsored by SIGCHI)
http://listserv.acm.org/archives/chikids.htm

Belief doesn’t change reality.

- C. Everett Koop