User testing: Some references for further reading

**Overall framework description**

Kushniruk AW, Patel VL. Cognitive and usability engineering

methods for the evaluation of clinical information systems. J

Biomed Inform 2004; 37; 56–76.

Kushniruk AW, Patel VL, Cimino JJ. Usability Testing in Medical Informatics: Cognitive Approaches to Evaluation of Information Systems and User Interfaces. Proc AMIA Annu Fall Symp. 1997: 218–222

**How to conduct a user test**

Nielsen Norman Group. Industry leader in this methodology.

Lots of web-based articles and pdf reports based on empirical research in their lab.

- How Many Test Users in a Usability Study

- Time Budgets for Usability Sessions

- Authentic Behavior in User Testing

- Recruiting Test Participants

- Cost of User Testing a Website

- Traveling Usability Lab

and much more….

<http://www.nngroup.com/topic/user-testing/>

Kuniavsky M. Observing the User Experience: A Practitioner's Guide to User

Research. 1 ed. Kaufmann M, editor: Morgan Kaufmann; 2003

Chisnell D, Rubin J. Handbook of usability testing: how to plan,

design, and conduct effective tests. 2nd ed. New York, NY: Wiley;

2008

Krug, S. Don’t make me think! A common sense approach to Web Usability. New Riders Publishing. Berkeley 2000.

**A few examples of articles in the health care research domain involving usertesting**

Rosenbaum SE, Glenton C, Cracknell J. User experiences of evidence-based online resources for health professionals: user testing of The Cochrane Library. BMC Med Inform Decis Mak 2008;8:34.

Rosenbaum SE, Glenton C, Nylund HK, Oxman AD. User testing and stakeholder feedback contributed to the development of understandable and useful Summary of Findings Tables for Cochrane reviews. Journal of Clinical Epidemiology 2010; 63:607-19.

Rosenbaum SE, Glenton C, Wiysonge CS, Abalos E, Migniini L, Young T, et al. Evidence summaries tailored for health policymakers in low and middle-income countries. WHO Bulletin, Volume 89, Number 1, January 2011

Anita Menon, Nicol Korner-Bitensky, Mark Chignell, Sharon Straus. Usability testing of two e-learning resources: Methods to maximize potential for clinician use. J Rehabil Med 2012; 44: 338–345

Giguere A et al. Decision boxes to facilitate shared decision making in primary care - a study protocol. BMC Medical Informatics and Decision Making 2011, 11:17.

Dorfman C et al. The development of a web- and a print-based decision aid for prostate cancer screening. BMC Medical Informatics and Decision Making 2010, 10:12.

Saleem J et al. Redesign of a Computerized Clinical Reminder for Colorectal Cancer Screening: A Human-Computer Interaction Evaluation. BMC Medical Informatics and Decision Making 2011, 11:74

*Phd thesis:*

Rosenbaum SE. Improving the user experience of evidence. A design approach to evidence-informed health care. PhD thesis, Oslo College of Architecture and Design. December 2010.

**Some method articles**

Alsos OA, Dahl Y. Toward a Best Practice for Laboratory-Based Usability Evaluations of Mobile ICT for Hospitals. Proceedings: NordiCHI 2008, October 20-22, 2008.

Wildman Daniel. Getting the Most from Paired-User Testing. Interactions. July 1995.

**Sampling issues**

Jakob Nielsen’s Alertbox: March 19, 2000

Why You Only Need to Test with 5 Users

http://www.nngroup.com/articles/why-you-only-need-to-test-with-5-users/

Martin N Marshall. Sampling for qualitative research. Family Practice, Oxford University Press 1996. Vol. 13, No. 6

Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with Data Saturation and Variability. Field Methods, Vol. 18, No 1, February 2006 59-82.

**Does user test work?**   
(These reports doesn’t highlight user testing specifically but user participation and feedback in general. I haven’t conducted a systemtic review !)

Nilsen ES, Myrhaug HT, Johansen M, Oliver S, Oxman AD. Methods of consumer involvement in developing healthcare policy and research, clinical practice guidelines and patient information material. Cochrane Database of Systematic Reviews 2006, Issue 3. Art. No.: CD004563. DOI: 10.1002/14651858.CD004563.pub2.

AHRQ. Improving Consumer Health IT Application Development: Lessons From Other Industries. AHRQ Publication No. 11-0065-EF, May 2011.