



Designing for Social Change

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RESEARCH IN PRACTICE

Findings usability professionals should know about

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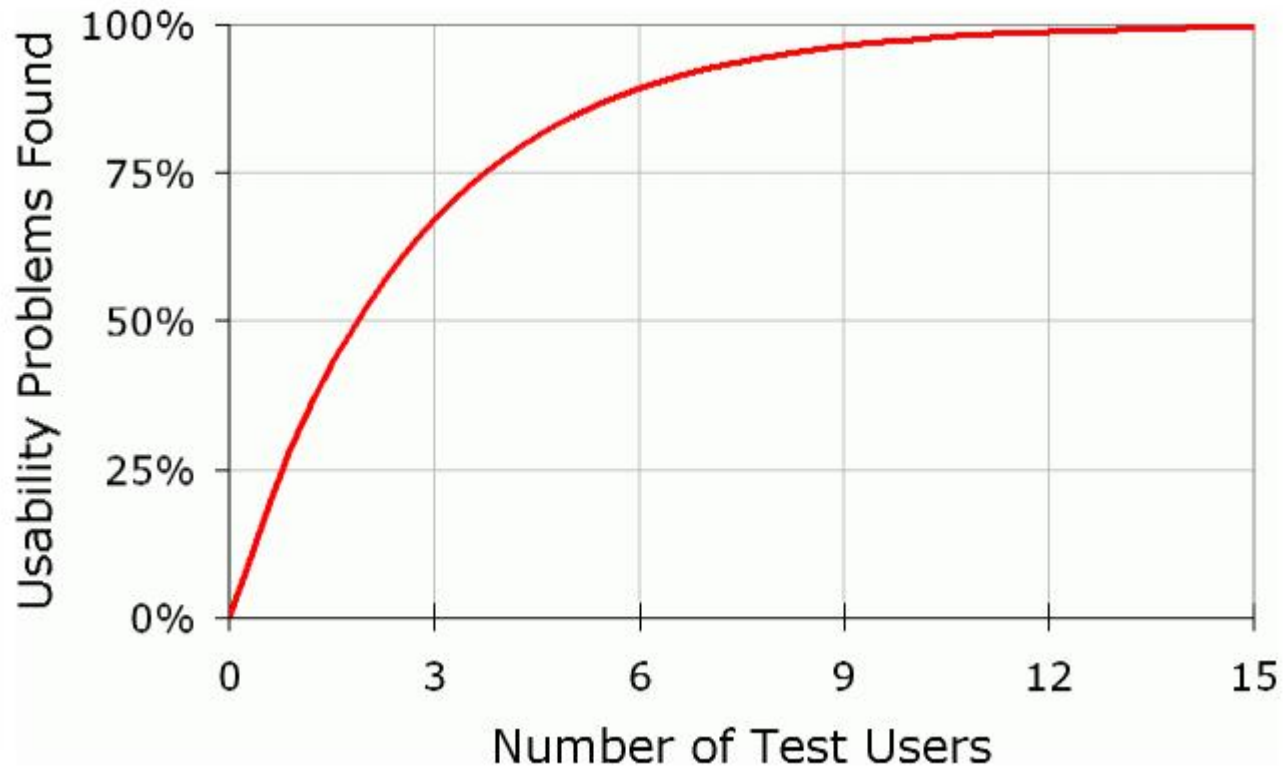
Usability.org

Veronica Hinkle

State Farm

#1. Usability testing & Sample modeling

What Nielsen found...



Jakob Nielsen, Thomas K. Landauer (1993)
A mathematical model of the finding of usability problems

What Faulkner found...

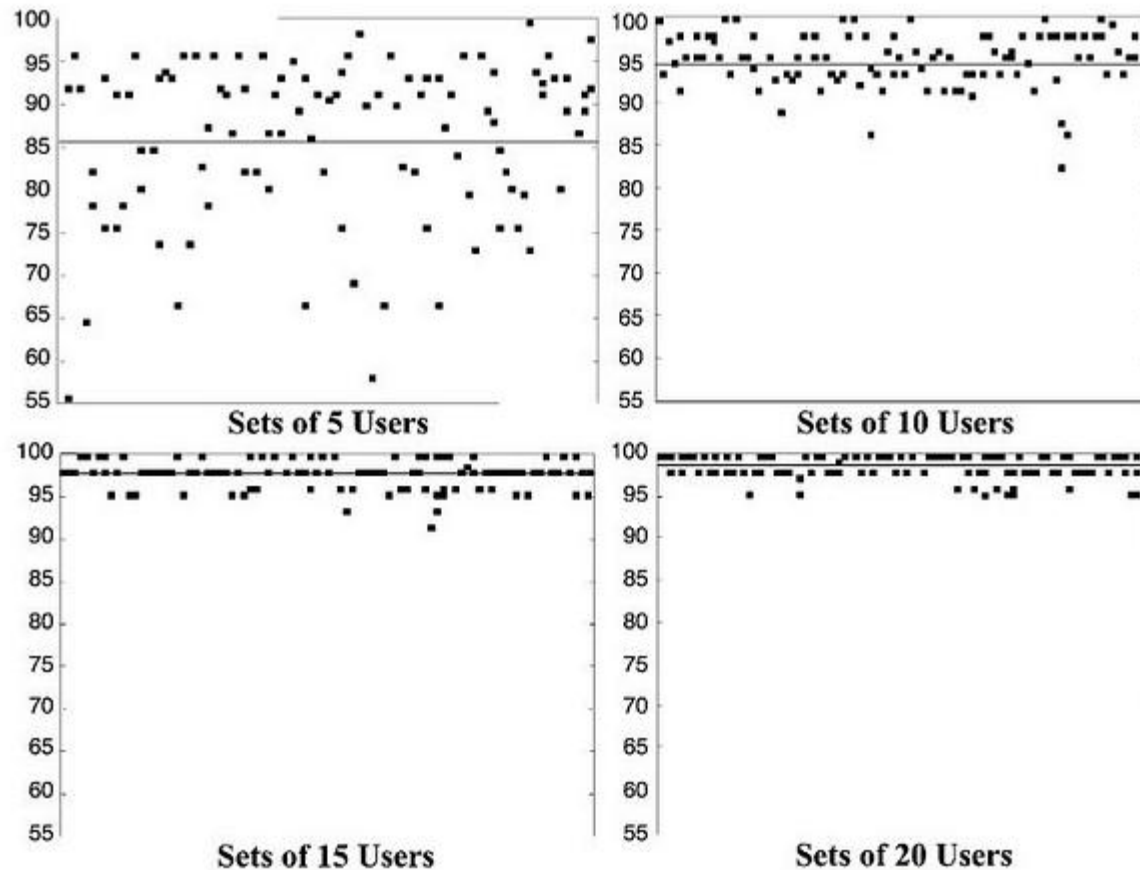


Figure 1. The effect of adding users on reducing variance in the percentage of known usability problems found. Each point represents a single set of randomly sampled users. The horizontal lines show the mean for each group of 100.

Faulkner, L. (2003)

Beyond the five-user assumption: Benefits of increased sample sizes in usability testing

What Faulkner found...

No. Users	Minimum % Found	Mean % Found	SD	SE
5	55	85.55	9.2957	.9295
10	82	94.686	3.2187	.3218
15	90	97.050	2.1207	.2121
20	95	98.4	1.6080	.1608
30	97	99.0	1.1343	.1464
40	98	99.6	.8141	.1051
50	98	100	0	0

Faulkner, L. (2003)

Beyond the five-user assumption: Benefits of increased sample sizes in usability testing

Practitioner Takeaways

- Testing 5 participants you may see as many as 85% or as little as 55% of the problems, depending on the luck of the participant draw
- Test at least 10 users/group to be confident you are capturing the 82% or more of the problems

#2. Form Alignment

Which is best?

left aligned

right aligned

top

in-field

flow

The image displays five different form layouts for a registration form, each on a light gray grid background. The form fields include: First Name, MI, Last Name, Address Line 1, Address Line 2, City, State, Zip Code, Country, Home Phone Number, Mobile Phone Number, Work Phone Number, Work Email, Personal Email, and DOB (MM/DD/YYYY). A 'Submit' button is located at the bottom of each form.

- left aligned:** All labels and input fields are aligned to the left.
- right aligned:** All labels and input fields are aligned to the right.
- top:** Labels are positioned above their respective input fields.
- in-field:** Labels are placed inside the input fields, typically at the top left.
- flow:** Labels and input fields are arranged in a continuous, flowing sequence from top-left to bottom-right.

Bojko, A., Scheumacher, R (May 5, 2008)
Eye Tracking & Usability Testing in Form Layout Evaluation

Practitioner Takeaways

- Users prefer left or right aligned labels
- If it is likely that users will need to revisit the form (e.g., fix errors) then use left aligned. If it is not likely, use right aligned

#3. Format Examples & Specifications

Which is best?

None	Format Example	Format Specification	Both
<p>Street, Number <input type="text"/></p>	<p>Street, Number e.g. Regent Street, 23 <input type="text"/></p>	<p>Street, Number <input type="text"/> Enter street and number separated by a "comma"</p>	<p>Street, Number <input type="text"/> Enter street and number separated by a "comma" (e.g. Regent Stree, 23)</p>
<p>Post/Zip Code, Town <input type="text"/></p>	<p>Post/Zip Code, Town e.g. 4056 / Basel <input type="text"/></p>	<p>Post/Zip Code, Town <input type="text"/> Enter post/zip code and town separated by a "/"</p>	<p>Post/Zip Code, Town <input type="text"/> Enter post/zip code and town separated by a "/" (e.g. 4056/Basel)</p>
<p>Country <input type="text"/></p>	<p>Country e.g. CH, DE, AT <input type="text"/></p>	<p>Country <input type="text"/> Enter country as a two-digit abbreviation</p>	<p>Country <input type="text"/> Enter country as a two-digit abbreviation (e.g. CH, DE, AT)</p>

Bargas-Avila, J., Orsini, S., Piosczyk, H., Urwyler, D., Opwis, K. (2011)
 Enhancing online forms: Use format specifications for fields w/ format restrictions to help respondents

Practitioner Takeaways

- If you have enough space, offer both the format specification and an example
- If you don't have enough space, provide just the format specification without an example

#4. Microsoft's Product Reaction Cards

Accessible	Creative	Fast	Meaningful	Slow
Advanced	Customizable	Flexible	Motivating	Sophisticated
Annoying	Cutting edge	Fragile	Not Secure	Stable
Appealing	Dated	Fresh	Not Valuable	Sterile
Approachable	Desirable	Friendly	Novel	Stimulating
Attractive	Difficult	Frustrating	Old	Straight Forward
Boring	Disconnected	Fun	Optimistic	Stressful
Business-like	Disruptive	Gets in the way	Ordinary	Time-consuming
Busy	Distracting	Hard to Use	Organized	Time-Saving
Calm	Dull	Helpful	Overbearing	Too Technical
Clean	Easy to use	High quality	Overwhelming	Trustworthy
Clear	Effective	Impersonal	Patronizing	Unapproachable
Collaborative	Efficient	Impressive	Personal	Unattractive
Comfortable	Effortless	Incomprehensible	Poor quality	Uncontrollable
Compatible	Empowering	Inconsistent	Powerful	Unconventional
Compelling	Energetic	Ineffective	Predictable	Understandable
Complex	Engaging	Innovative	Professional	Undesirable
Comprehensive	Entertaining	Inspiring	Relevant	Unpredictable
Confident	Enthusiastic	Integrated	Reliable	Unrefined
Confusing	Essential	Intimidating	Responsive	Usable
Connected	Exceptional	Intuitive	Rigid	Useful
Consistent	Exciting	Inviting	Satisfying	Valuable
Controllable	Expected	Irrelevant	Secure	Credible
Convenient	Familiar	Low Maintenance	Simplistic	Empathetic

Benedek, J & Miner, T. (2002)

Measuring Desirability: New methods for evaluating desirability in a usability lab setting.

Practitioner Takeaways

- Provides a convenient way to quantify descriptors by word choice, frequency, identify thematic clusters, and overall feelings
- Microsoft's Product Reaction Cards provide rich diagnostic information that is 100% elicited from the user
- Data from this method is easy for practitioners to analyze and there are many different ways to visualize the results

Overall Thoughts