


UX Day Graz 2013

"Five users will find 85% of the usability problems"
- and other myths about usability testing

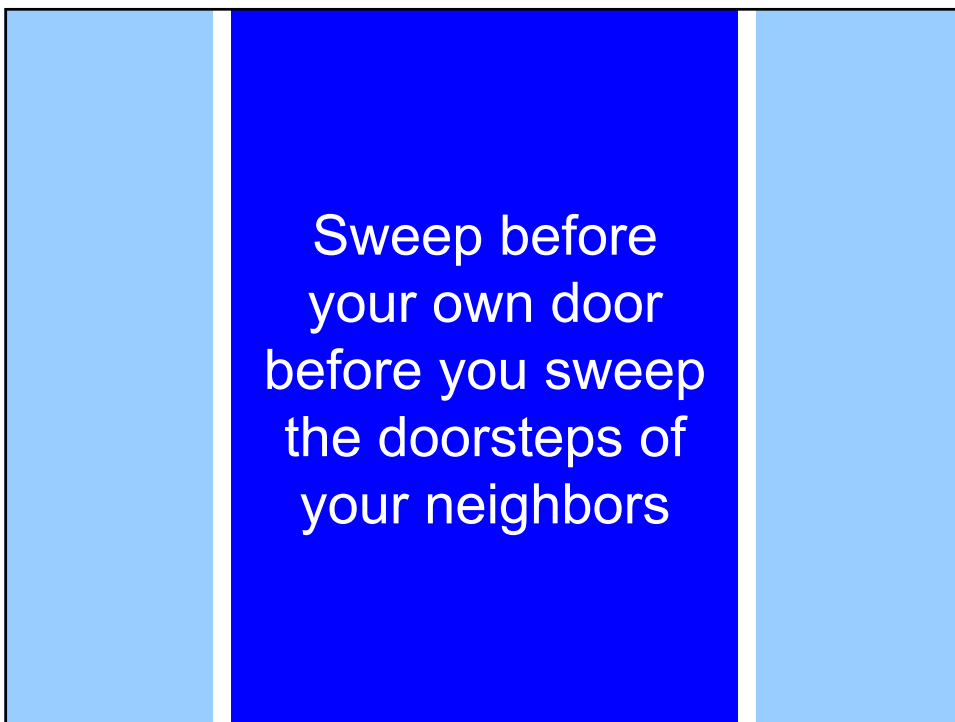


Rolf Molich
DialogDesign

Dogma 1

- ▶ Deliverables from usability professionals must be highly usable
Reports, presentations, responses to comments, etc.

2



(G_01) Professionalism and trust issues arise on presentation of the home page – for matting looks sloppy and lacks visual appeal... the booking engine can seem like a popup ad. **C**

(G_02) Strong navigation bar, but poor execution of tabbing metaphor; this design results in visual disassociation with main page, and poor communication on scope of site. **B**

Model the tabbing metaphor more realistically to enhance the correlation with main page. Display submenu items horizontally underneath the bar to enhance continuity and association (thus removing the roll over menu).

(G_02.2) It's good that fields are not left empty, but are pre-populated with current dates – once start date changes, end date automatically changes to match. **P**

(G_03) Good credibility building but lacks visibility within the page. Enhance this feature through visual segmentation, colour and form. **C**

(G_04) Are users searching or finding? Match the users goals, not the process to get to goals... Search → Book a car **C**

(G_05) The position of the page fold on standard 1024x768 resolution makes it appear that there is nothing below the fold – make sure that some content sits across the fold so that users know it's there – draw attention down towards the bottom of the page **C**

(G_06) Good use of headings, but poor alignment with data fields causes confusion. Be direct and 'actionable' with labels and headings, e.g. Create a car reservation → 'Book a car'

Remove redundant self-referential link

Excerpt from Usability Test Report - CUE-6, Team G

Screen shots have been used to illustrate the good points and potential issues – along with recommendations and example solutions

(ID number) These are comments identified through the expert evaluation
Severity rating

Recommendations for improvement/maintenance

This is a positive point

(ID number) This is a severe usability issue that needs resolving
Severity rating

(ID number) This is a usability issue that needs resolving
Severity rating

This is a participant quote

Excerpt from Usability Test Report - CUE-6, Team G

Dogma 2

- ▶ Data trumps opinion at any time

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CUE-9:

19 Atlanta +16 Chemnitz
Professionals

5 Videos

>100 Different
Findings

The slide features a central dark blue rectangle with white text. This rectangle is flanked by two vertical light blue bars. The text is centered within the dark blue area.

Data to Fight Unsubstantiated Myths and Voodoo

-- CUE motto

The slide is divided into three main sections. On the left, a light blue box contains a large black number '0'. Below this, a dark blue box contains the word 'Survey'. On the right, a large dark blue box contains the question and three options, each with a colored square bullet point.

0

Survey

What is a "usability test"?

- I don't know
- I know what it is –
I have observed one or more
- I know what it is –
I have conducted one or more

UX Day Graz 2013 "Five users will find 85% of the usability problems" — and other myths about usability testing

Please mark your position on each of the following statements:

Statements	Agree	Both agree & disagree	Disagree	For your notes
1. Five users are enough to catch 85% of the usability problems in practically any product				
2. The main goal of a usability test is to discover usability problems				
3. Expert reviews provide results that are as reliable as those from usability tests				
4. At least 25% of the comments in a usability test report should be positive				
5. Usability testing can be conducted by anyone				

The article *The top usability testing myths* on www.creativebloq.com covers many of the topics in this presentation.

Please use a few minutes to mark your position on each of the 5 statements above

1

Five users are enough to catch 85% of the usability problems in practically any product

- Agree
- Both agree & disagree
- Disagree

Truth or myth?

useit.com → Alertbox → Mar. 2000 Test With 5 Users

Jakob Nielsen's Alertbox, March 19, 2000:
Why You Only Need to Test with 5 Users

Some people think that usability is very costly and complex and that user tests should be reserved for the rare web design project with a huge budget and a lavish time schedule. Not true. Elaborate usability tests are a waste of resources. The best results come from testing no more than 5 users and running as many small tests as you can afford.

In earlier research, Tom Landauer and I showed that the number of usability problems found in a usability test with n users is:

$$N(1-(1-L)^n)$$

where N is the total number of usability problems in the design and L is the proportion of usability problems discovered while testing a single user. The typical value of L is 31%, averaged across a large number of projects we studied. Plotting the curve for $L=31\%$ gives the following result:

Number of Test Users	Usability Problems Found (%)
0	0
1	~31
2	~57
3	~75
4	~84
5	~90
6	~94
7	~96
8	~97
9	~98
10	~98.5
11	~99
12	~99.3
13	~99.5
14	~99.7
15	~99.8

The most striking truth of the curve is that **zero users give zero insights.**

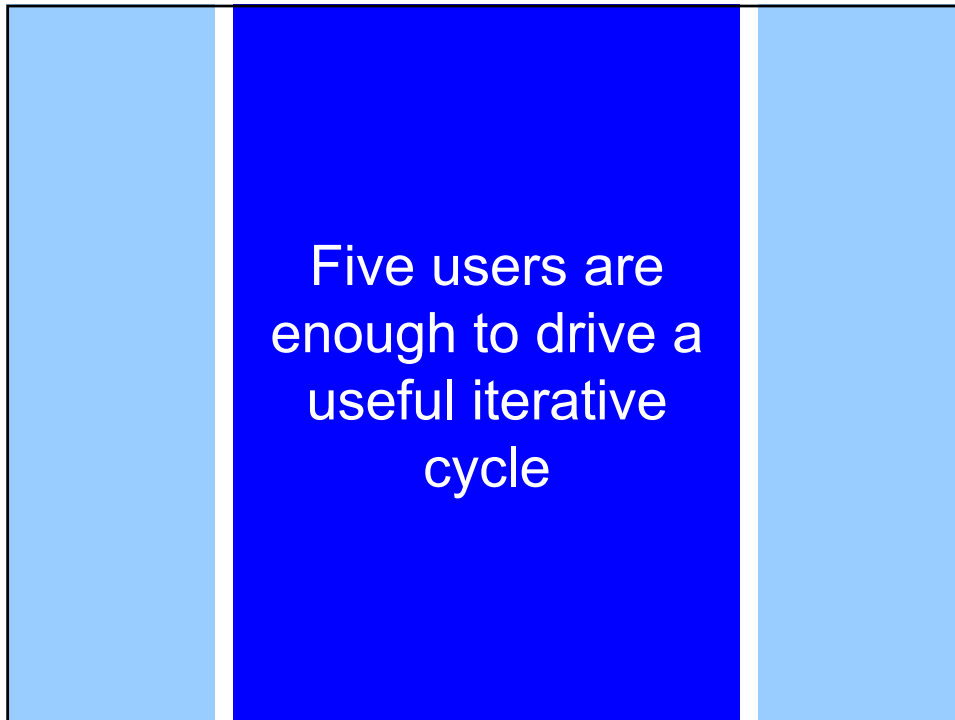
"The parabola of optimism" (Jared Spool)

Real data: CUE studies

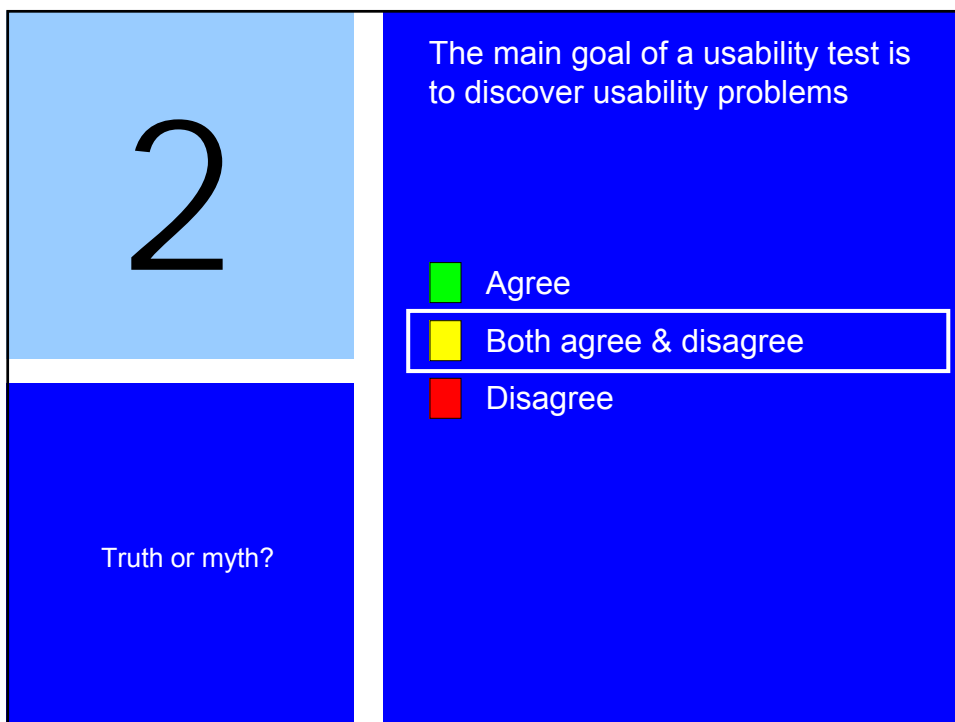
CUE = Comparative Usability Evaluation

- ▶ 10-17 professional teams test the same website.
- ▶ In all CUE-studies, more than 60% of problems were uniquely reported.
- ▶ In CUE-4, more than 300 issues were reported.

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Five users are enough to drive a useful iterative cycle

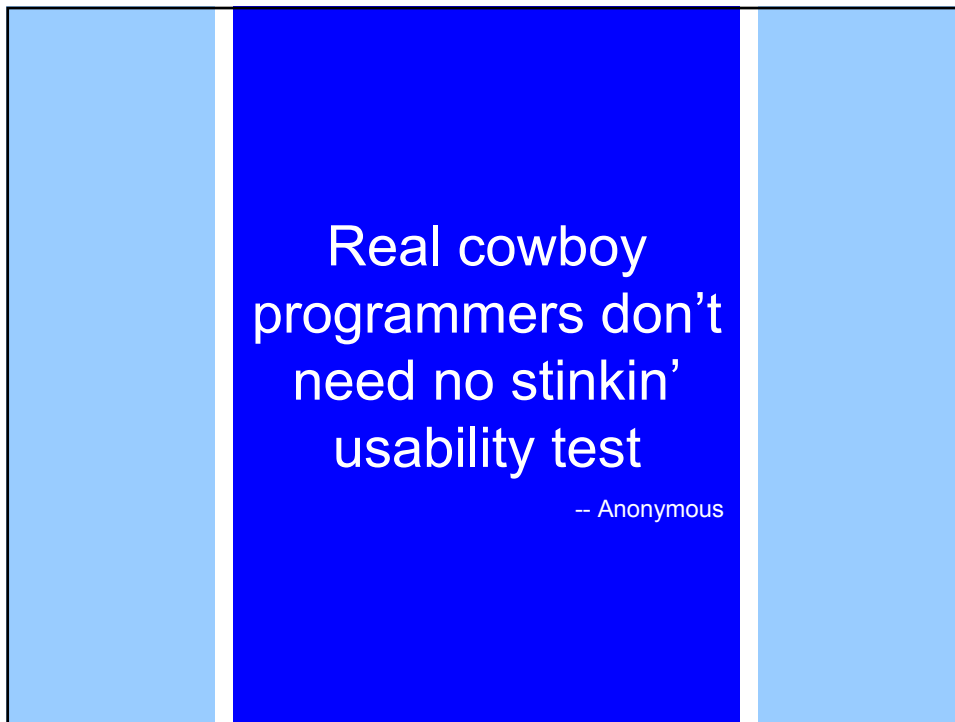


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Truth or myth?

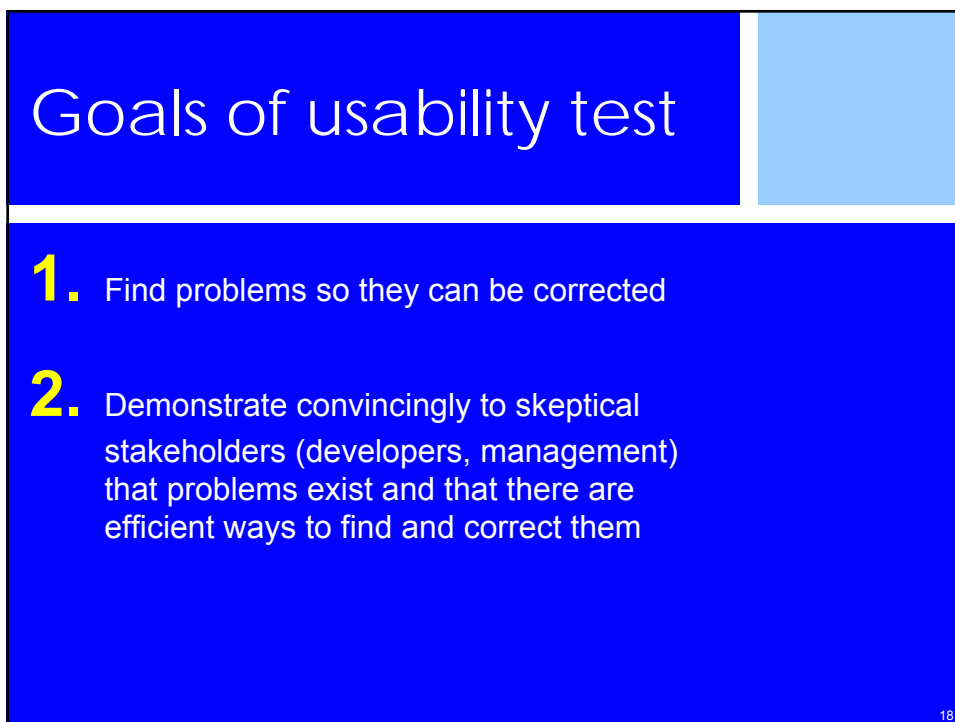
The main goal of a usability test is to discover usability problems

- Agree
- Both agree & disagree
- Disagree



Real cowboy
programmers don't
need no stinkin'
usability test

-- Anonymous



Goals of usability test

1. Find problems so they can be corrected
2. Demonstrate convincingly to skeptical stakeholders (developers, management) that problems exist and that there are efficient ways to find and correct them

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3

Expert reviews provide results that are as reliable as those from usability tests

Truth or myth?

- Agree
- Both agree & disagree
- Disagree

Expert review vs. Utest

Data from CUE-studies, most notably CUE-4, consistently shows

- ▶ Expert reviews find as many problems as usability testing
- ▶ Expert reviews overlook problems – but so do usability tests
- ▶ Expert reviews are cheaper than usability tests

These findings apply only when expert reviews are carried out by **Experts**

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Beware!

Expert reviews can be political dynamite in organizations that are immature with respect to usability.

Before doing an expert review, consider what you will answer an upset stakeholder or developer who asks you:

- ▶ “Why are your opinions better than mine?”

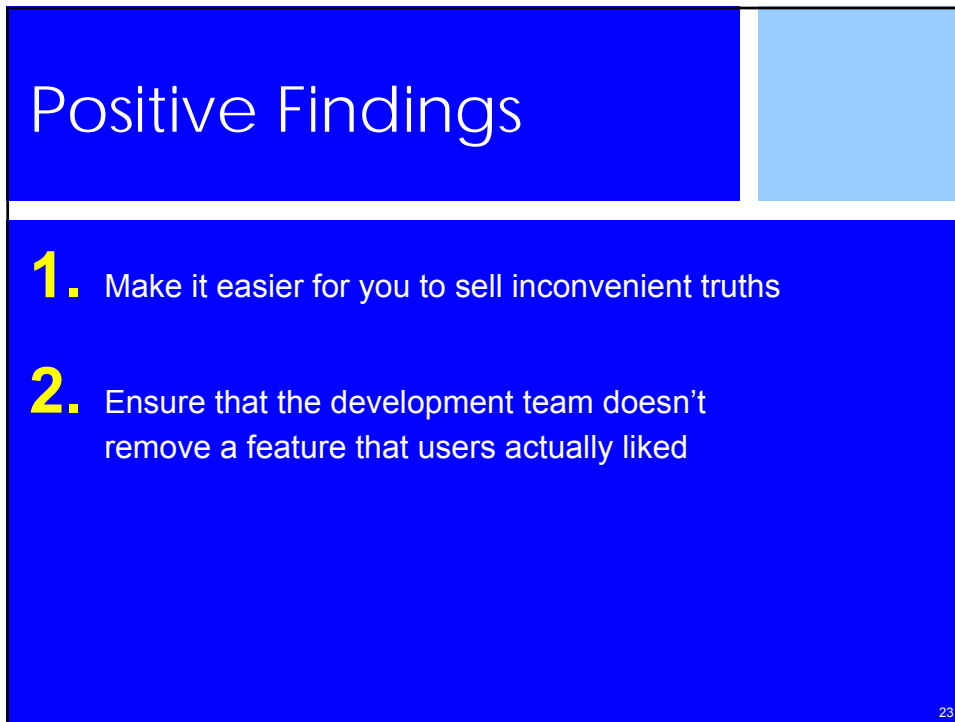
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4

At least 25% of the comments in a usability test report should be positive

- Agree
- Both agree & disagree
- Disagree

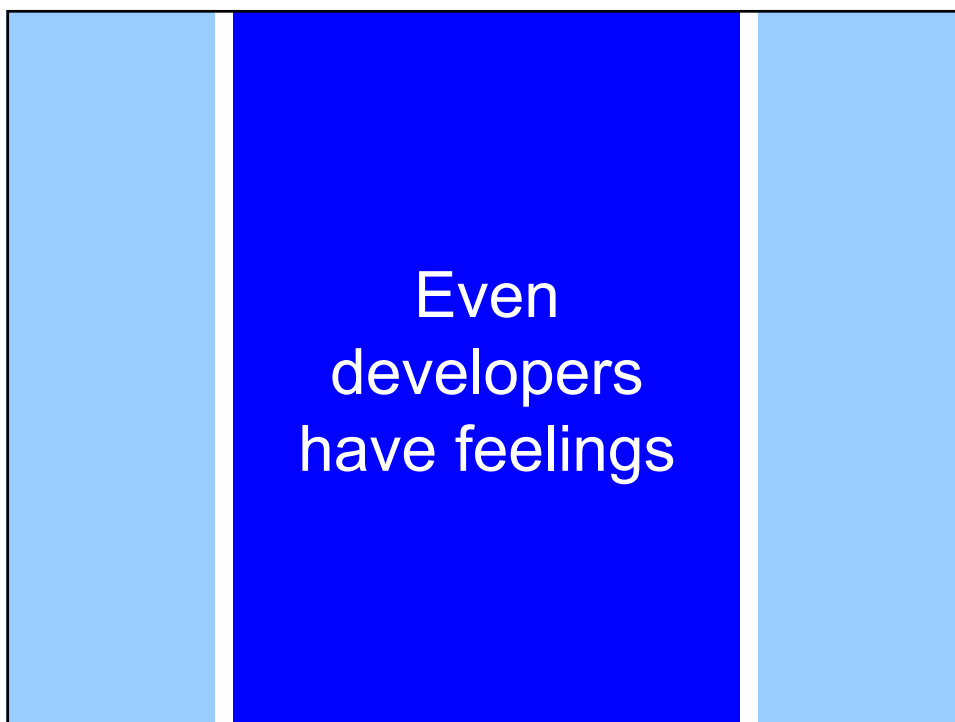
Truth or myth?



Positive Findings

1. Make it easier for you to sell inconvenient truths
2. Ensure that the development team doesn't remove a feature that users actually liked

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Even
developers
have feelings

Required by UPA CPC

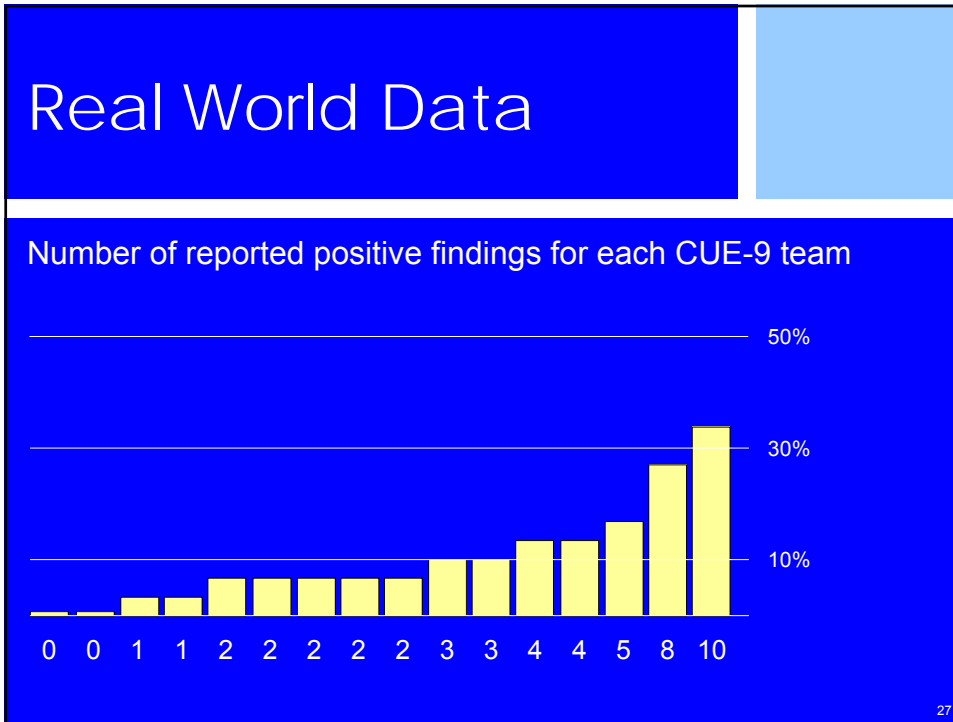
Positive findings are required by the UPA Code of Professional Conduct

- ▶ The CPC requires you to "accurately report both the positive and negative feedback".
- ▶ If you can prove that there is nothing positive to say, then you have fulfilled the CPC.
I am not sure how I would prove this.

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When you have a hammer in your hand, everything looks like a nail
-- The Law of the Instrument, Abraham Kaplan

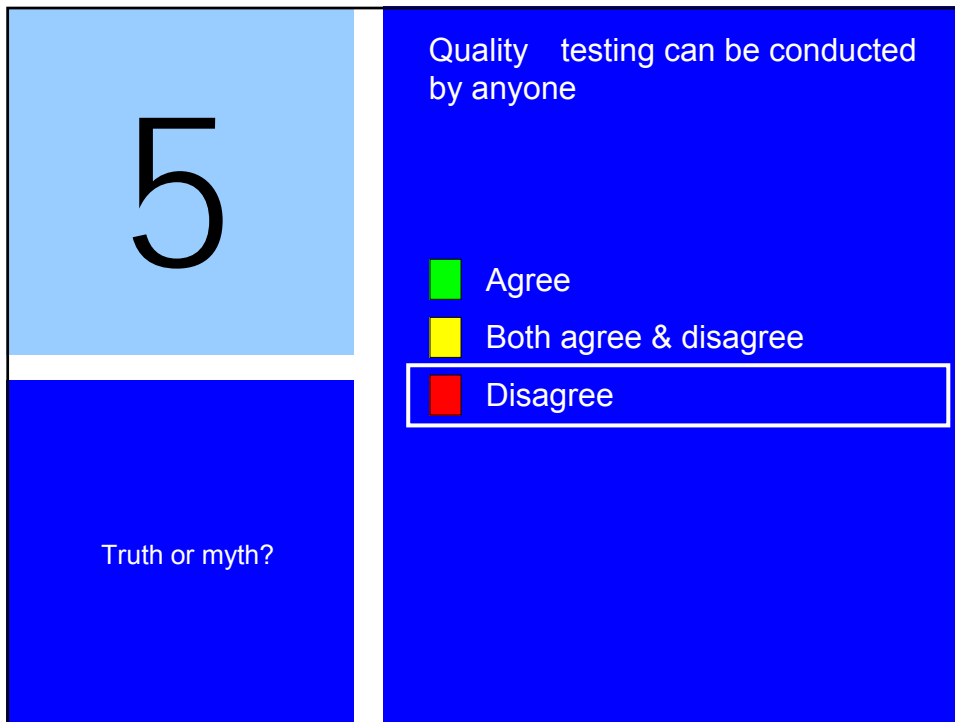


5

Usability testing can be conducted by anyone

Truth or myth?

- Agree
- Both agree & disagree
- Disagree



5

Quality testing can be conducted by anyone

Truth or myth?

- Agree
- Both agree & disagree
- Disagree



If you don't care about quality, everything else is trivial

-- Gerald M. Weinberg

10 Assessments

- 1 professional passed with flying colors
- 2 professionals had serious deviations but no critical deviations from generally accepted good practice in usability testing.
- 5 professionals had both critical deviations and serious deviations
- 2 professionals did so badly that the assessor recommended that the client should not pay for the service, or that the test should be repeated at no cost for the client.

A "serious deviation" from good practice may skew important results.

A "critical deviation" from good practice will skew important test results seriously.

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Client Actions

Actions taken by clients to prevent future quality problems:

- ▶ Develop and publish usable guidelines for good usability testing. The guidelines are based on observed user behaviour.
 - ▶ Quality Assurance as part of procurement
"Do a test while we observe"
Is their understanding of a good usability test the same as ours?
 - ▶ Make assessments available to teams and insist that they respond.
- Fortunately, most usability professionals take pride in doing things right

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Certification

- ▶ The German UPA is currently working on a professional certification scheme for
 - ▶ Foundation level (“Do You Speak Usability?”)
 - ▶ Usability Tester
 - ▶ Usability Engineer
- ▶ Certification procedure:
 - ▶ 40 multiple choice questions for CPUX-F
 - ▶ Relevant deliverable (advanced levels only)

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Did this presentation change some of your views of usability testing?

- Yes
- Don't know
- No

Evaluation

Takeaways

- ▶ As usability professionals we must set a good example for the world
- ▶ Our products, presentations, doings must be usable and useful: Correct, relevant, brief, constructive
- ▶ Five users are enough to drive a useful iterative cycle. Never claim that you can find all usability problems
- ▶ Expert reviews are valuable – but politically challenging
- ▶ Include positive findings

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