

### **Usability Testing Ballots**

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#### Learn how to

- Conduct a usability test
- Understand what happened in the test
- Turn that into improved ballots



## What we'll cover

- Intro to usability testing
- Methodology and planning
- Tips and techniques
- ✤ The LEO Kit



#### Introduction to Usability Testing





- For you, it's whether the ballot can be counted
- For voters, it's whether they are able to vote as they intend to



## What is a usability test?

- Observe real people using something (rather than asking them about it)
- Measure how easy something is to use to accomplish a task: Can voters vote without becoming confused and making mistakes?
- Inform design: Where can we prevent mistakes?
   How can we help voters recover from mistakes?



## What is usability testing?

- ✤ Controlled, semi-realistic
- Explore questions with measurable answers
- ✤ Confirm or challenge' assumptions
- Help choose between design alternatives





#### Demonstration

- Volunteer for voter
- Everyone else observe the session
- I'll be moderator, doing what you should do if you were conducting usability testing



#### Demonstration

- ✤ Voter assume
  - You haven't done much homework on what the measures are
  - You have a vague feeling about how you want to vote
  - You want to be sure to vote on the measure about education technology



#### Demonstration

- ✤ Observers, please note
  - What the voter does
  - What the voter says





	OFFICIAL BALLOT		
	CLARK COUNTY, WASHINGTON		
	SPECIAL ELECTION		
	February 06, 2007	Precinct 0905-02	
	MAKE SURE YOUR VOTE COUNTS.	CAMAS SCHOOL DISTRICT NO. 117	
	Please take the time to read through all of the voting instructions	PROPOSITION NO. 1	
	below and the instructions printed on the other materials included in four ballot packet before fou begin voting. Bf understanding the	BONDS TO CONSTRUCT AND EXPAND SCHOOLS	
	voting instructions thoroughly, you will be able to successfully vote		
	∮our ballot. VOTING INSTRUCTIONS:	The Board of Directors of Camas School District No. 117 adopted Resolution No. 06-03, concerning a proposition to relieve overcrowding	
	<ol> <li>Your ballot must be voted in secret and shown to no one.</li> </ol>	bf constructing and expanding schools. This proposition would	
	<ol> <li>Use a black or blue ink pen to mark four ballot bf completelf filling in the box to the left of four choice(s).</li> </ol>	authorize the District to construct two new elementar∮ schools, expand Camas High School and Lacamas Heights and Doroth∮ Fox Schools,	
	<ol> <li>Unless specificall∮ allowed b∮ law, more than one vote for a ballot</li> </ol>	reconstruct Helen Baller Elementar School and Doc Harris Stadium,	
78	measure will be an overvote and no votes for that ballot measure will	make infrastructure, health and security improvements, acquire land for	
00	be counted. 4) lif∮ou make a mistake when voting,∮ou ma∮ request a	future school sites, and expand Transportation Center; issue no more than \$90,000,000 of general obligation bonds maturing within 21 fears;	
ŏ	replacement ballot by calling the Elections Department at (360)	and lev annual excess property taxes to repay the bonds, all as	
0	397-2345. Or, fou may correct it using the instructions printed on the fellow secrect envelope.	provided in Resolution No. 05-03. Should this proposition be:	
10000410100078	fellow secrecy envelope. 5) After ∮ou have completed voting, review ∮our choice(s) to be sure	APPROVED	
00	fou marked the ballot the waf fou intended to vote.		
00	<ol><li>Do not make anf mark of identification on the ballot or the secrec envelope.</li></ol>	REJECTED	
1	<ol> <li>Refold ∮our ballot in the same manner as when ∮ou received it</li> </ol>	CAMAS SCHOOL DISTRICT NO. 117	
	and place it in the fellow secrecf envelope. 8) Place the sealed fellow secrecf envelope containing four voted	PROPOSITION NO. 2	
	<ul> <li>ballot into the affidavit envelope with the green stripes.</li> </ul>	REPLACEMENT OF EXPIRING TECHNOLOGY LEVY	
	9) Read the Affidavit of Voter oath on the return envelope with the	The Board of Directors of Carnas School District No. 117 adopted	
	green stripes, then sign the affidavit oath and date it on the lines provided. YOUR BALLOT WILL NOT BE COUNTED IF YOU DO NOT	Resolution No. 06-04, concerning a proposition to finance educational	
	SIGN THE OATH ON THE AFFIDAVIT OF VOTER ENVELOPE.	technology improvements. This proposition would authorize the District	
	<ol> <li>Attach sufficient first class postage (\$0.39) and mail ∮our ballot so that it will be postmarked b∮ election da∮ or earlier.</li> </ol>	to acquire educational technologf equipment (including classroom computers to support instruction) and make other technologf	
	so that it will be postmarked by election day or earlier. 11) If fou choose not to mail four ballot, fou may take it to one of the	improvements by levying the following excess property taxes, in place	
	ballot drop locations listed on the sheet of instructions included in	of an expiring lev, on all taxable propert, within the District:	
80	∮our ballot packet.	Approximate Lev∮	
100000002130		Collection Rate/\$1,000 Lev∮	
002	CITY OF WASHOUGAL	Year Assessed Value Amount 2008 \$0.25 \$1,072,671	_
00	PROPOSITION NO. 1	2009 \$0.26 \$1,137,032	ù
00	NEW CIVIC CAMPUS	2010 \$0.25 \$1,171,143 2011 \$0.25 \$1,206,277	-
00	GENERAL OBLIGATION BONDS - \$7,500,000	2012 \$0.25 \$1,242,465	1023031162
1		2013 \$0.25 \$1,279,739	6
	The Citf Council of the Citf of Washougal adopted Ordinance No. 1668 concerning a proposition for bonds. This proposition authorizes the Citf	all as provided in Resolution No. 06-04. Should this proposition be	Ę.
	to construct a new Civic Campus including Public Librarf, Senior	approved?	
	Room, Communit∮ Room, and a Cit∮ Hall, to issue \$7,500,000 of general obligation bonds maturing within a maximum term of 20 ∮ears		
	general obligation bonds maturing within a maximum term of 20 years to finance such improvements, and to levy property taxes annually in	LEVYYES	
	excess of regular property tax levies to repay such bonds, all as	LEVYNO	
	provided in Ordinance No. 1568. Should this proposition be:		
	APPROVED?		
	REJECTED?		



- Participant: what was it like?
- Moderator: what questions do you have about moderating?
- Observer: what did you see?



- ✤ How well did that go?
- What did you observe the voter doing?
- What problems did the voter have?
- How did the moderator behave?





#### Methodology and Planning





## Goals of testing

- Identify problems in design that could lead to residual votes or fall-off
- Even the best ballot design can introduce unpredictable problems
- Make it easier to carry out the voter's intent
- Make it more likely that the voter's intent is carried out
- Only good news about the election



## Things to think about

- Know why you're testing
- Make sure the right people are on board
- Find the right participants
- Frame the voting task in a voter-centered way
- Facilitate curiously, objectively
- Know what you want to do with the results
- ✤ Be willing to iterate designs



## Why not do this in a group?

- In focus groups, you get
  - Preferences
  - Opinions
  - Group consensus
- In a usability test, you get
  - Individual behavior and performance
  - What happened, as well as why



- Something about the situation has changed since the last time you did it
- You have a good idea of what's going to be on the ballot
- Some event happens that would change the layout



## Who to include

- ✤ Voters: 12-15 or 5-7, one at a time
- ✤ Moderator
- Observer/note-taker



#### What you need

- A ballot or other election materials
- A polling place or other situation
- Some way to take notes
- Recording, or no recording?



- Prepare copies of what you want to test
- ✤ Recruit voters to try out the materials
- One at a time, have a voter try to use the materials
- Observe what happens, note what voters say
- When the voter is done voting, ask the voter to step through what he/she did, where there were questions, what was confusing
- Over several voters, look for patterns in the problems and questions they had



#### **Tips and Techniques**



Break!



## Moderating

- ✤ Impartial, unbiased, observing
- ✤ No teaching!
- ✤ Listen and watch
- Open-ended questions: Why? How? What were you doing?



## Moderator roles

- ✤ Flight attendant
  - Ensuring safety and comfort
- ✤ Sportscaster
  - Play-by-play
  - Maximizing information flow to observer/note taker
- ✤ Scientist
  - Planning
  - Maintaining objectivity
  - Managing data
  - Producing reports
  - Iterating design



- We're not testing you your being here helps us create a better ballot
- You can stop if it's uncomfortable
- Your involvement will be confidential
- Problems you have with using the ballot are not your fault
- ✤ If you get stuck or confused, say so
- ✤ Treat me like a poll worker



## Maximizing information

- ✤ If the voter says, "hmmm" or "oops" or "I wonder..."
  - Say, "What questions do you have right now?"
- ✤ If the voter is silent for 10 or 20 seconds (count!)
  - Say, "What are you thinking?"
- If the voter stops because she thinks she's done or she's stuck (and you think there's a problem)
  - Summarize what you saw her do
  - Ask what she will do next



## Think aloud or review

- ✤ Consider asking people to "think aloud" as they vote
  - What they're doing
  - Why they're doing it
- ✤ Review after voting
  - Ask the voter to walk you through, step-by-step what they did and why
  - Use the ballot as a guide for the discussion
  - Ask what was confusing or frustrating
  - You may want to ask voters to do specific things now and comment



## Forming task scenarios

- ✤ Open-ended
- ✤ Separate the results from the process
  - You want them to under vote
  - They want to vote for as many commissioners as they're comfortable with





#### Task examples

- You usually vote for everyone in the Yellow party.
   Vote for all the people in that party at one time.
- For State Senator, instead of the Yellow party person, you want the Orange party person. Make sure your vote for State Senator is for the Orange party person.

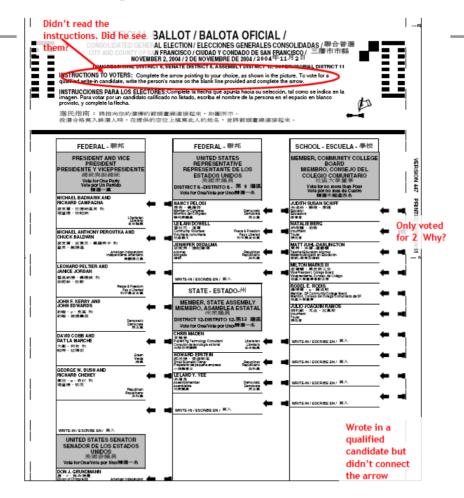


#### Task examples

- For now, you decide not to vote for Water Commissioners.
- You don't have a strong feeling about the state Supreme Court justices, so you decide to allow them to stay in office.
- When you are ready, finish voting as you really would in a real election.



#### Taking notes





# Test a ballot

- Break up into groups
- Each person takes a role: participant, moderator, observer

#### Vote Both Sides

		Vole Doin Glacy		
	OFFICIAL BALLOT	CLARK COUNT	Y, WASHINGTON	
	GENERAL ELECTION			
	November 07, 2006	Precin	ct 483-01	
	VOTING INSTRUCTIONS: 1) Use a black or blue ink per to mark your		FEDERAL OFFICES	
	ballot by completely filling in the box to the left of your choice(s).	PROPOSED BY INITIATIVE PETITION	U.S. SENATOR Pull Six Year Term	
	<ol> <li>Vote your ballot in secret and do not show it to anyone.</li> </ol>	Initiative Measure No. 900 concerns government regulation of private property.	VOTE FOR ONE Maria Canterell - DEM	
	3) To vote for a person not appearing on the ballot, completely fill in the box to the left of	This measure would require companies on when government regulation damages the use or value of	Mike McGavick - REP	
	the Write-In choice and use the line provided. Write-In votes cast for parties rulices must	private property, would furbld regulations that prohibit existing legal uses of private	Bruce Guthrie - LIB Robin Adair - IND	
В	include the candidate's party affiliation. 4) Fyou make a misbike when voting, you	property, and would provide exceptions or payments.	Aaron Doon - GRN Wite-in	
1000	may request a replacement ballot by calling the Elections Department at (360) 397-2345.	Should this measure be enabled into law? YES	Vetto-in	
00 00 630 10 00	Or, you may correct it using the instructions printed on the yellow secrecy envelops.	<b>□</b> NO	U.S. REPRESENTATIVE 3rd CONGRESSIONAL DISTRICT	
0 00	5) After voting, review your choices to be sure you marked the ballot the way you intended.	INITIATIVE MEASURE NO. 557 PROPOSED BY INITIATIVE PETITION	Full Two Year Term VOTE FOR CALL	
1	Do not make any mark of identification on the ballot or anoncoy envelope.	Initiative Measure No. 937 concerns energy resource use by certain electric	Brian Baird - DEM	
	() Read the Affidavit of Vatar oath on the	utilities. This measure would require certain	Michael Messmore - REP Witte-in	
	return envelope, with the green stripes, then sign the afficient outh and date it. YOUR DALLOT WILL NOT BE COUNTED IF YOU DO	electric utilities with 25,000 or more customers to meet certain targets for		
	NOT SIGN THE OATH ON THE AFFIDAVIT OF VOTER EWELOPE.	renavable energy resources, as defined,		
	7) Relaid your voted ballot, place it in the	including energy credits, or pay penalties, Should this measure be enacted into law?	STATE LEGISLATIVE OFFICES STATE REPRESENTATIVE	
	yellow secrecy envelope and anal it. Place the secrecy envelope in the affidavit envelope, attach sufficient fint class postage	YES NO	17TH LEGISLATIVE DISTRICT POSITION NO. 1	
	(\$0.36) and mail it so that it will be postmarked by election day or earlier.	HOUSE JOINT RESOLUTION 4223	Pull Two Year Term VOTE FOR CNE	
	() If you choose not to mail your ballot, you	PROPOSED BY THE LEGISLATURE - AMENDMENT TO THE STATE CONSTITUTION	Pat Campbell - DEM	
	may take it to one of the ballot drop locations. Rated on the page of instructions included in your ballot packet.	The legislature has proposed a constitutional amendment on increasing	Jim Dunn - REP Witte-In	
	have many parton	an examption from the personal property		
		This amendment would authorize the legislature to increase the personal	STATE REPRESENTATIVE 17TH LEGISLATIVE DISTRICT	
	STATE MEASURES	property tax exemption for taxable	POSITION NO. 2 Pull Two Year Term	
	INITIATIVE MEASURE NO. 920	personal property owned by each "head of a family" from three thousand (\$3,000)	VOTE FOR ONE	
	PROPOSED BY INITIATIVE PETITION	to fileen thousand (\$15,000) dollars.	Deb Wellace - DEM	
	Initiative Measure No. 929 concerns	Should this constitutional amendment be:	Paul Harris – REP	
-	estate tax. This measure would repeal Washington's	APPROVED	Witte-in	
2	state laws imposing tax, currently	REJECTED		
8 00 06 66 01 13 1	dedicated for the education legacy trust			
66	fund, on transfers of estates of persons dying on or after the effective date of this			54
90	regardere.	POLITICAL PARTY LEGEND:		Ξ
8	Should this measure be enacted into law?	DEM = DEMOCRATIC PARTY	CONTINUE VOTING ON THE REVERSE	0843 0311 72
8	YES	REP = REPUBLICAN PARTY	SDE OF THE BALLOT	7
	ND	LIB = LIBERTARIAN PARTY IND = INDEPENDENT CANDIDATE		8
_		GRN = GREEN PARTY		
		NP = NONPARTISAN CANDIDATE		_

	OFFICIAL BALLOT	CLARK COUNT	Y, WASHINGTON	
	GENERAL ELECTION			
	November 07, 2006	Precin	ot 483-01	
		STATE SUPREME COURT	DISTRICT COURT JUDGE POSITION NO. 4	
=		STATE SUPREME COURT JUSTICE - POSITION NO. 2	Full Four Year Term	
	COUNTY OFFICES	Full Six Year Term	VOTE FOR ONE	
	COUNTY ASSESSOR	VOTE FOR ONE	Kenneth R. Elesland - NP	
	Full Four Year Term VOTE FOR ONE	Susan Owana - NP	Witte-in	
	Linds Fratklin - DEM	Stephen Johnson - NP		
	Bill Jameson - REP	White-in	DISTRICT COURT JUDGE	
	Write-in		POSITION NO. 5 Full Four Year Term	
00 00 630 20 00 62		STATE SUPREME COURT	VOTE FOR ONE	
8	COUNTY AUDITOR	JUSTICE - POSITION NO. 8 Pull Six Year Term	Rich Melnick - NP	
5	Full Four Year Term	VOTE FOR ONE	Witte-in	
G	VOTE FOR ONE	Gerry L. Alexander - NP		
8	Greg Kimsey - REP	White-in	DISTRICT COURT JUDGE	
8	Write-in		POSITION NO. 6 Shot and Full Four Year Term	
-		STATE SUPREME COURT	VOTE FOR ONE	
	COUNTY CLERK Full Four Year Term	JUSTICE - POSITION NO. 8 Put Six Year Term	John P. Haganaan - NP	
	VOTE FOR ONE	VOTE FOR ONE	Witte-in	
	Sherry Parker - DEM	Tom Chambers - NP		
	Baine Wilson - REP	White-in		
	Write-in		PUBLIC UTILITY DISTRICT NO. 1 OF	
			CLARK DOUNTY	
	COUNTY COMMISSIONER	STATE COURT OF APPEALS	PUBLIC UTILITY DISTRICT	
	DISTRICT NO. 3	STATE COURT OF APPEALS	COMMISSIONER, DISTRICT NO. 1 Pull Six Year Term	
	Full Four Year Term VOTE FOR ONE	JUDGE - POSITION NO. 1 DIVISION 2, DISTRICT 3	VOTE FOR CHE	
	Steve Stuart - DEM	Full Six Year Term	Carol Curtis - NP	
	Bruce Hegenson - REP	VOTE FOR ONE	Jim Malinowski - NP	
	Write-in	Joel Penoyar - NP Wilte-in	Witte-in	
		Vense-m		
	COUNTY PROSECUTING			
	ATTORNEY	CLARK COUNTY DISTRICT COURT		
	Full Four Year Term VOTE FOR ONE	DISTRICT COURT JUDGE POSITION NO. 1		
	Art Curfix - DEM	Full Four Year Term		
	Write-in	VOTE FOR ONE		
		Vernon L. Schreiber - NP		
50		White-In		
00 06 66 01 22				
26.0		DISTRICT COURT JUDGE POSITION NO. 2		13
ğ	COUNTY SHERIFF Full Four Year Term	Short and Full Four Year Term		0843 0311 72
8	VOTE FOR ONE	VOTE FOR ONE		8
00	Timothy Shoteall - DEM	James P. Swanger - NP		4
	Garry Lucas - REP	White-in		80
_	Write-in			
		DISTRICT COURT JUDGE		_
	COUNTY TREASURER	POSITION NO. 3 Full Four Year Term		
	Full Four Year Term	VOTE FOR ONE		
	VOTE FOR ONE Doug Lasher - DEM	Devin J. Zimmernen -		
	Write-in	NP		
		White-in		

Vote Both Sides



#### Discussion

- What kinds of things happened?
- What did your voter do?
- What did your voter say?



## What are the results?

- ✤ Base your results on what voters *did* 
  - All voters said that the language of the measures was complex and difficult to understand
  - Some voters said that the type was too small
  - Several voters marked their selections with checkmarks or Xs rather than filling in the box
  - Only a few of the voters read the instructions on the ballot
  - Voters expected the numbers to designate steps they should take



## Analyzing data

- Make sure the problems you identify relate back to the reasons you did the test
- Count errors
- Look at where in the ballot the errors occurred
- Look at the types of errors
- If you have a lot of usability problems put them on stickies and sort them
- Compare to the next election cycle





- Encourage reporting for
  - Sunshine
  - Public relations
  - Demonstration of improvement and progress





- Usability Testing Ballots: What you need to know
- Session script
- Report template



Summary

- Usability test your ballots
- Understand the what happened in the test
- Turn that into improved ballots





- Best practices for effective designs for elections administration (EAC): <u>http://www.ebp4.us/document-</u> review/best-practices
- Usability Professionals' Association: <u>www.upassoc.org</u>
- A Practical Guide to Usability Testing by Joe Dumas and Janice Redish
- ✤ Handbook of Usability Testing by Jeff Rubin
- My blog about usability testing at <u>http://usabilitytestinghowto.blogspot.com/</u>

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Contact me for coaching, questions, or testing

Dana Chisnell
 <u>www.usabilityworks.com</u>
 <u>dana@usabilityworks.net</u>
 415.392.0776