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## Test Report: Ballot Usability Feedback – [Mitchell] County

To: [Election director / secretary of state / advisors]

From: [moderator name]

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## Executive Summary

This document describes results of usability evaluation of ballot designs and instructions for voting for the [November 2008 General] Election in [name] County. The usability tests collected quantitative and qualitative feedback from people who are like typical voters on [optical scan and electronic] ballots [as well as instructions for voting].

These evaluations were conducted between [date and date, year] on site at the election department. The ballots and instructions were evaluated in individual interactive sessions with 15 people.

[*Sample summary:* Overall, most participants were able to mark ballots, write in candidates, and figure out how to change their votes. However, participants had difficulty changing votes on DREs and understanding and following some of the instructions for voting. Generally, participants responded very positively to the organizational layout and usefulness of the ballots, and their appearance. Areas for improvement include: supporting vote-by-mail voters better with clearer instructions and simpler graphics, replacing traditional instructions for voting with plain language instructions, and adding prompts at the bottom right-hand column on optical scan ballots to turn ballot cards over.]

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## About the tests

The purpose of these usability tests was to observe how easily and successfully voters could vote on ballots for the [November 2008 General] Election. [Say something about how close to final the ballots were, or that the ballots were from a previous election, etc.]

We observed people who were eligible to vote doing so and noted what they did and said. We asked participants to vote as they normally would and then cast a ballot for the mock election session.

We tried to answer these questions:

- How easily and successfully did voters mark their ballots in all contests?
- How easily and successfully did voters review and mark their ballots on measures/propositions/issues?
- What questions and problems did voters have?
- Where did voters make mistakes? Were they aware that they had made mistakes? If not, why not? If so, what did they do to recover?
- What aspects of the ballot are difficult to understand?
- What do users like and dislike about the flow of ballot, e.g., navigation, organization of information, and grouping of content?

[*Sample text:* It was our intention to run individual sessions of 15 to 20 minutes. We scheduled participants ahead of time, but also did sessions with people who happened in to the county offices and would give us a few minutes. ]

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## Who participated?

### [Mitchell County]

[*Sample text:* Mitchell County is the Eden of Kansas, being rural and lightly populated, with many of the residents being descendants of children who arrived in Kansas in the 1880s on “orphan trains.” Of the 15 people who took part in the usability test on [date], five were on town councils or on county commissions. Participants’ ages ranged from 25 to 72. The average age of the participants was just over 55.

*Sample data:* ]

Participant Number	Age	Zip	Race/ ethnicity	Gender	Any physical limitations?	Registered?	Voted before?	Last voting system used
1	71	94941	White	Female	No	Yes	Yes	Optical scan
2	72	94930	White	Female	No	Yes	Yes	Optical scan
3	63	94901	Asian	Female	No	Yes	Yes	Mail-in
4	56	94903	Asian	Female	No	Yes	Yes	Punch card
5	69	94901	Asian	Male	No	Yes	Yes	Optical scan
6	63	94904	White	Male	No	Yes	Yes	Mail-in
7	34	94903	Other	Female	No	Yes	Yes	Mail-in
8	25	94903	White	Female	No	Yes	Yes	Mail-in
9	47	94941	White	Female	No	Yes	Yes	Optical scan
10	55	94960	White	Female	No	Yes	Yes	Punch card
11	63	94903	White	Female	No	Yes	Yes	Mail-in
12	63	94941	White	Female	No	Yes	Yes	Optical scan
13	45	94947	(not marked)	Female	No	Yes	Yes	Mail-in
14	37	94901	White	Male	No	Yes	Yes	Optical scan
15	64	94930	White	Female	No	Yes	Yes	Punch card

## What did we test?

[Name] was the main facilitator for all of the sessions with helpers from the election department. The helpers had also reviewed the LEO Test Kit. The helper greeted participants, explained the study, and walked through the informed consent form. The facilitator moderated the interviews and conducted debriefings with observers between sessions. The facilitator and helper worked together to debrief observers and elections officials at the end of the day of testing.

[Sample text: There were observers from outside the Elections Department. With only two exceptions, these observers were from advisory committees to the department. The exceptions were a journalist and a photographer from the Mitchell County Independent Journal who covered the test.

We had briefed observers before the sessions started, giving them ground rules and a rundown of how the sessions were structured. The observers were earnest, respectful, and engaged. Their being present definitely helped move the discussion in end-of-day debriefings.]

## Ballots and voting materials tested

In Mitchell County, we evaluated optical scan ballots that the county had already worked on trying to improve based on the guidelines and suggestions in the EAC best practices report and the Brennan Center's report, *Better Ballots*. We picked one ballot style to test, agreeing that it had the most complexity of the ballots that would be used in the election. All of the participants were successful using that ballot but many suggested improvements in the instructions. The instructions for using the ballot were simplified and replaced in time for the election.

TEST BALLOT		
GENERAL ELECTION NOVEMBER 4, 2008 MARIN COUNTY, CALIFORNIA		
<b>INSTRUCTIONS TO VOTERS:</b> <ul style="list-style-type: none"><li>Use only the marking pen provided, or a ball-point pen with black ink.</li><li>To vote for a candidate, completely blacken the oval next to your choice, like this <input checked="" type="radio"/>. Do not vote for more than the number of candidates to be elected.</li><li>When there are two (2) or more candidates to be elected for the same office, blacken the ovals next to each of your choices.</li><li>To vote on a measure, blacken the oval next to the word YES or next to the word NO.</li><li>Write-in candidates: To vote for a qualified write-in candidate, blacken the oval next to the blank line for the office and write the name of the person on the line. Do not vote for both a write-in candidate and a candidate whose name is on the ballot for the same office.</li><li>All distinguishing marks on the ballot are forbidden and void the ballot.</li><li>If you make a mistake, tear your ballot, or want to change your vote, return it to the election official and obtain another.</li></ul>		
<b>FEDERAL</b> PRESIDENT AND VICE PRESIDENT Vote for One Party (1)  <input type="radio"/> BOB BARR Wayne A. Root <input type="radio"/> JOHN MCCAIN Sarah Palin <input type="radio"/> CYNTHIA MCKINNEY Rosa Clemente <input type="radio"/> ALAN KEYES Wiley S. Drake, Sr. <input type="radio"/> RALPH NADER Matt Gonzalez <input type="radio"/> BARACK OBAMA Joe Biden	<b>DISTRICT</b> MARIN HEALTHCARE DISTRICT, DIRECTOR Vote for no more than Two (2)  <input type="radio"/> ARCHIMEDES RAMIREZ Neurosurgeon <input type="radio"/> PETER CHRISTIAN ROMANOWSKY Minister/Entertainer/Artist <input type="radio"/> RETIRED SIMMONDS Retired Physician <input type="radio"/> SHARON J. JACKSON Minister <input type="radio"/> FRANK PARNELL Physician/Businessman	<b>PROPOSITION 3: CHILDREN'S HOSPITAL BOND ACT, GRANT PROGRAM, INITIATIVE STATUTE.</b> Authorizes \$980,000,000 in general obligation bonds for construction, expansion, remodeling, renovation, furnishing and equipping of eligible children's hospitals. Fiscal Impact: State cost of about \$2 billion over 30 years to pay off both the principal (\$980 million) and interest (\$353 million) costs of the bonds. Payments of about \$64 million per year.  <input type="radio"/> YES <input type="radio"/> NO
<b>UNITED STATES REPRESENTATIVE, 6TH DISTRICT</b> Vote for One (1)  <input type="radio"/> JOEL R. SMOLEN Registered Investment Advisor <input type="radio"/> MIKE HALLIWELL College Professor <input type="radio"/> LYNN WOOLSEY U.S. Representative	<b>MEASURES SUBMITTED TO THE VOTERS</b>  <b>STATE</b> <b>PROPOSITION 1A: SAFE, RELIABLE HIGH- SPEED PASSENGER TRAIN.</b> To provide California a safe, convenient, affordable, and reliable alternative to driving and high gas prices; to provide good-paying jobs and improve California's economy while reducing air pollution, global warming greenhouse gases, and our dependence on foreign oil, shall \$9.65 billion in bonds be issued to establish a clean, efficient high-speed train service linking southern California, the Sacramento/San Joaquin Valley, and the San Francisco Bay Area, with at least 90 percent of bond funds subject to independent audits? Fiscal Impact: State costs of \$19.4 billion, assuming 30 years to pay both principal and interest costs of the bonds. Payments would average about \$647 million per year. When constructed, unknown operation and maintenance costs, probably over \$1 billion annually, at least partially, and potentially fully, offset by passenger fares.  <input type="radio"/> YES <input type="radio"/> NO	<b>PROPOSITION 4: WAITING PERIOD AND PARENTAL NOTIFICATION BEFORE TERMINATION OF MINOR'S PREGNANCY, INITIATIVE CONSTITUTIONAL AMENDMENT.</b> Changes California Constitution, prohibiting abortion for unemancipated minor until 48 hours after physician notifies minor's parent, legal guardian, or, in limited cases, substitute adult relative. Provides an exception for medical emergency or parental waiver. Fiscal Impact: Potential unknown net state costs of several million dollars annually for health and social services programs, court administration, and state health agency administration combined.  <input type="radio"/> YES <input type="radio"/> NO
<b>STATE</b> STATE SENATOR, 3RD DISTRICT Vote for One (1)  <input type="radio"/> MARK LENO California State Legislator <input type="radio"/> SASHI MCINTEE Small Business Consultant	<b>MEMBER OF THE STATE ASSEMBLY, 6TH DISTRICT</b> Vote for One (1)  <input type="radio"/> PAUL LAVERY Businessman/Father <input type="radio"/> JARED HUFFMAN Incumbent <input type="radio"/> TIMOTHY J. HANNAN Attorney/Mediator/Arbitrator	<b>PROPOSITION 5: NONVIOLENT DRUG OFFENSES, SENTENCING, PAROLE AND REHABILITATION, INITIATIVE STATUTE.</b> Allocates \$460,000,000 annually to improve and expand treatment programs. Limits court authority to incarcerate offenders who commit certain drug crimes, break drug treatment rules or violate parole. Fiscal Impact: Increased state costs potentially exceeding \$1 billion annually primarily for expansion of offender treatment programs. State savings potentially exceeding \$1 billion annually on corrections operations. Net one-time state prison capital outlay savings potentially exceeding \$2.5 billion.  <input type="radio"/> YES <input type="radio"/> NO
<b>PROPOSITION 2: STANDARDS FOR CONFINING FARM ANIMALS. INITIATIVE STATUTE.</b> Requires that certain farm animals be allowed, for the majority of every day, to fully extend their limbs or wings, lie down, stand up and turn around. Limited exceptions apply. Fiscal Impact: Potential unknown decrease in state and local tax revenues from farm businesses, possibly in the range of several million dollars annually. Potential minor local and state enforcement and prosecution costs, partly offset by increased fine revenue.  <input type="radio"/> YES <input type="radio"/> NO		
<b>VOTE ON BOTH SIDES OF BALLOT →</b>		

Before testing

OFFICIAL BALLOT		
GENERAL ELECTION NOVEMBER 4, 2008 MARIN COUNTY, CALIFORNIA		
<b>INSTRUCTIONS TO VOTERS:</b> <ul style="list-style-type: none"><li>Use only the marking pen provided or a ball point pen with black ink.</li><li>To vote for a candidate, completely blacken the oval to the left of the name, like this <input checked="" type="radio"/>. Where two or more candidates for the same office are to be elected, blacken the oval to the left of each of your choices.</li><li>To vote on a measure, completely blacken the oval next to YES or NO.</li><li>To vote for a qualified write-in candidate, completely blacken the oval next to the blank line for that office and write the name of the person on the line.</li><li>If you make a mistake, damage your ballot, or you want to change a vote, take your ballot to an election worker and get another. All distinguishing marks are forbidden and void the ballot.</li></ul>		
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<b>UNITED STATES REPRESENTATIVE, 6TH DISTRICT</b> Vote for One (1)  <input type="radio"/> JOEL R. SMOLEN Registered Investment Advisor <input type="radio"/> MIKE HALLIWELL College Professor <input type="radio"/> LYNN WOOLSEY U.S. Representative	<b>MEASURES SUBMITTED TO THE VOTERS</b>  <b>STATE</b> <b>PROPOSITION 1A: SAFE, RELIABLE HIGH- SPEED PASSENGER TRAIN BOND ACT.</b> To provide California a safe, convenient, affordable, and reliable alternative to driving and high gas prices; to provide good-paying jobs and improve California's economy while reducing air pollution, global warming greenhouse gases, and our dependence on foreign oil, shall \$9.65 billion in bonds be issued to establish a clean, efficient high-speed train service linking Southern California, the Sacramento/San Joaquin Valley, and the San Francisco Bay Area, with at least 90 percent of bond funds spent for specific projects, with private and public matching funds required, including, but not limited to, federal funds, funds from revenue bonds, and local funds, and all bond funds subject to independent audits? Fiscal Impact: State costs of \$19.4 billion, assuming 30 years to pay both principal and interest costs of the bonds. Payments would average about \$647 million per year. When constructed, unknown operation and maintenance costs, probably over \$1 billion annually, at least partially, and potentially fully, offset by passenger fares.  <input type="radio"/> YES <input type="radio"/> NO	<b>PROPOSITION 3: CHILDREN'S HOSPITAL BOND ACT, GRANT PROGRAM, INITIATIVE STATUTE.</b> Authorizes \$980,000,000 in general obligation bonds for construction, expansion, remodeling, renovation, furnishing and equipping of eligible children's hospitals. Fiscal Impact: State cost of about \$2 billion over 30 years to pay off both the principal (\$980 million) and interest (\$353 million) costs of the bonds. Payments of about \$64 million per year.  <input type="radio"/> YES <input type="radio"/> NO
<b>STATE</b> STATE SENATOR, 3RD DISTRICT Vote for One (1)  <input type="radio"/> MARK LENO California State Legislator <input type="radio"/> SASHI MCINTEE Small Business Consultant	<b>MEMBER OF THE STATE ASSEMBLY, 6TH DISTRICT</b> Vote for One (1)  <input type="radio"/> PAUL LAVERY Businessman/Father <input type="radio"/> JARED HUFFMAN Incumbent <input type="radio"/> TIMOTHY J. HANNAN Attorney/Mediator/Arbitrator	<b>PROPOSITION 4: WAITING PERIOD AND PARENTAL NOTIFICATION BEFORE TERMINATION OF MINOR'S PREGNANCY, INITIATIVE CONSTITUTIONAL AMENDMENT.</b> Changes California Constitution, prohibiting abortion for unemancipated minor until 48 hours after physician notifies minor's parent, legal guardian, or, in limited cases, substitute adult relative. Provides an exception for medical emergency or parental waiver. Fiscal Impact: Potential unknown net state costs of several million dollars annually for health and social services programs, court administration, and state health agency administration combined.  <input type="radio"/> YES <input type="radio"/> NO
<b>VOTE ON BOTH SIDES OF BALLOT →</b>		

After testing

## Tasks

[*Sample text:* In our study, we asked participants to use the ballot to vote as they normally would. We watched for how they navigated and marked the ballot, whether they read the instructions, whether they remembered to turn the printed ballot over, how easily they changed votes on DREs, and then asked them how to write in candidates.]

## Test Facilitator Tools

At the beginning of the session, participants completed a demographic questionnaire (see the data starting on page 2). At the end of the session, participants completed a satisfaction questionnaire in which they rated several statements subjectively. (If participants evaluated more than one ballot, they used the same rating form. See that data starting on page 9.) Then they answered several open-ended questions regarding their impressions of the ballot and voting experience.

The facilitator used a session script to ensure that all participants received the same disclosure about the study and generally the same instructions. The script also acted as a checklist for the facilitator to make sure she covered everything that the election director wanted to find out about. Otherwise, the facilitator and helpers behaved as poll workers would.

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## Results

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### What did participants find confusing or difficult?

*[The following are all examples from real usability tests of ballots.]*

#### General issues across voting systems

- Participants skipped reading instructions and went directly to voting
- Instructions for voting were unclear and difficult to understand
  - especially for first-time users of paper ballots
  - instructions used complex language: “Enclose ballot card in write-in ballot secrecy sleeve”
  - write-in instructions are problematic; it is difficult to convey the complex concepts simply and briefly
- Illustrations were too small and not obviously related to each other, the text, or the voter’s immediate task
- Participants suggested illustrating examples of correctly and incorrectly marked ballots
- Non-native English speakers requested materials in their own languages at best and in plain English at least
- Many participants complained that the language of measures was difficult to understand

- Some participants strongly suggested that sample ballots look as much like the real ballot as possible
- A few participants had questions about how to *not* vote in contests on paper and to skip contests on electronic ballots
- Most participants were unfamiliar with election jargon such as “electors,” “partisan,” “PBR,” and “overvote”

### **Optical scan ballots**

- A few participants found multi-language ballots to be confusing
- A few participants marked ballots incorrectly
- Participants had suggestions for formatting the text of measures to separate out types of information
- Participants had difficulty matching up illustrations in instructions to how voting actually worked
- Aligning choices when connecting arrow ends was difficult for a few participants
- Participants assumed they could “x out” mistakes without spoiling their ballots, whether voting by mail or at a polling place

### **Electronic ballots on DREs**

- Participants had difficulty finding instructions and reading instructions in the plastic sleeve
- Participants had difficulty changing votes (even participants who said they had used DREs before)
- Reviewing and changing choices at the end of the voting process was confusing and difficult
- Nevada ballot had “None of the above” as a choice on state contests but not on others, which some participants found odd
- Navigating from the Review page through the ballot was not easy
- Forced review of undervoted contests confused participants; one participant suggested a message that explains this is what is happening
- The type size on the paper printout was too small to be read by some participants
- Participants were confused about how to cast their ballots

### **Mail-in ballot packages**

- Instruction booklets were visually cluttered, leaving voters overwhelmed: “too confusing to look at”

- It was often difficult to understand the order of information and what belonged together
- Some important things were not made obviously important

## What changes did we suggest?

Though we provided some specific suggestions in each jurisdiction at the end of each day of testing, most of those suggestions roll up to these recommendations (see also the discussions about the ballots starting on page 4):


- Simplify language as much as legally possible.
- Use the largest type possible.
- Replace all upper-case text with mixed case.
- Left-justify headings.
- Use color, shading, and emphasis carefully.
- Revise instructions to use plain language, and conduct usability tests to determine whether the revisions remedy the problems.

## What changes were made for the election?

Mitchell County was able to make changes in time for the upcoming election. We focused on the instructions for the ballot. Below we show the instructions we started with, the suggested language, and the language used.

### Original

**INSTRUCTIONS TO VOTERS:**

- Use only the marking pen provided, or a ball-point pen with black ink.
- **To vote for a candidate**, completely blacken the oval next to your choice, like this . **Do not vote for more than the number of candidates to be elected.**
- When there are two (2) or more candidates to be elected for the same office, blacken the ovals next to each of your choices.
- **To vote on a measure**, blacken the oval next to the word YES or next to the word NO.
- **Write-in candidates:** To vote for a qualified write-in candidate, blacken the oval next to the blank line for the office and write the name of the person on the line. **Do not vote for both a write-in candidate and a candidate whose name is on the ballot for the same office.**
- All distinguishing marks on the ballot are forbidden and void the ballot.
- If you make a mistake, tear your ballot, or want to change your vote, return it to the election official and obtain another.

### Suggested

#### Instructions to voters

Use only the marking pen provided or a ball point pen with black ink.

**To vote for a candidate**, fill in the oval to the left of the name, like this [image]. Vote only for the maximum number of candidates allowed for each race.

**To vote for a measure**, fill in the oval next to YES or NO.

**If you make a mistake or you want to change a vote**, take your ballot to an election


worker and get another.

**To write in a qualified candidate** who is not already on the ballot, fill in the oval next to a blank line for that office and write the name of the person on the line. Don't write in someone who is already on the ballot.

If you make marks on the ballot besides filling in the oval, your votes will not be counted.

## Final

### INSTRUCTIONS TO VOTERS:

- Use only the marking pen provided or a ball point pen with black ink.
- **To vote for a candidate**, completely blacken the oval to the left of the name, like this . Where two or more candidates for the same office are to be elected, blacken the oval to the left of each of your choices.
- **To vote on a measure**, completely blacken the oval next to YES or NO.
- **To vote for a qualified write-in candidate**, completely blacken the oval next to the blank line for that office and write the name of the person on the line.
- **If you make a mistake**, damage your ballot, or you want to change a vote, take your ballot to an election worker and get another. All distinguishing marks are forbidden and void the ballot.



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## Satisfaction Results

We asked participants to rate their reactions to seven statements (shown in the left column in each table below). These subjective ratings data are based on a 5-point scale, from 5=Strongly agree to 1=Strongly disagree. The numbers in the cells represent how many participants gave the statement that rating.

### Mitchell County – optical scan ballot

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neither Agree nor Disagree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
I thought the ballot was easy to use	6	6		3	
The instructions for this ballot were difficult to understand		2	2	7	4
It was easy to mark my choices	7	7	1		
I would imagine that most people would be able to use this ballot without problems	5	5	2	2	1
I found this ballot awkward to use	1	1	1	7	5
I felt very confident casting my vote using this ballot	7	6		2	
I would need help to use this ballot		2		5	8