Best Practices for media reporting on RCV elections
Round 2 Testing

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Fernando Sanchez
Emma Werowinski

Center for Civic Design

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Project overview

CCD tested 2 sets of sample displays, using bar graphs and tables to display the same result set.

We used numbers and adapted language from news articles about the 2022 Oakland Mayoral contest. This contest had 10 candidates, went to 9 rounds, and had a final winner who was second in 1st-round results, so it was a perfect set of numbers to hear participant reactions.

We wanted to learn:

- Is there a difference between people's understanding of RCV results communicated by bar graphs compared to tables?

- With limited space, is it more important to see all rounds or see all candidates?

- How do we educate people on results timeline from pending/1st round only to interim to final? Especially when the apparent winner changes?

How we tested

We tested in neighborhoods that had low ranking participation in 2021

Borough

Brooklyn	10
Queens	10

Woodhaven,Queens
Forest Park and
Queens Public Library

Brooklyn
Main Brooklyn Public
Library

We spoke to 20 people over 2 days

Race or Ethnicity	Participants
Black or African American	3
African/Middle Eastern	1
Hispanic or Latino/e	7
Asian	2
West Indian/Caribbean	1
Multi/Biracial	1
White or Caucasian	5

Education Level	Participants
Middle School	1
High School	5
Some College	3
Associate or Bachelor Degree	10
Master's Degree	1

Age	Participants
18-29	6
30-39	7
40-49	2
50-69	5

Gender	Participants
Male	12
Female	8

Most participants had voted before, but about half had never heard of RCV or were not familiar with it

Have you voted before?	Participants
Yes	15
No	5

How familiar are you with RCV?	Participants
Never heard of it	8
Not very familiar	4
Know about it but have not voted	1
Has voted using RCV	7

We asked people to tell us how they got their election news

This round, we had more participants who got election results by watching TV, compared to last round.

Where do you usually get your results?	Participants
TV	13
Online, search engine	6
Online, board of registrars	1
NYTimes	2
Twitter	2
Youtube	1

How we tested

We wanted to put people in the mindset of Election Day through learning about final election results.

We assigned people a ballot

E-Night Results

Interim Results

Interim Results Round by Round

Final Results

First, we assigned participants a ballot

We wanted to make sure that the displays were clear and trustworthy, no matter who our participants "voted" for.

Ballot A

Ballot A
Local Election, November 8, 2022
Oakland, California

City of Oakland
Mayor
You ranked 5 candidates.

1. **Loren Taylor**
2. **Ignacio de la Fuente**
3. **Sheng Thao**
4. **Treva Reid**
5. **Seneca Scott**

- 1st choice was leading in interim results, but does not win
- 3rd choice wins election

Ballot B

Ballot B
Local Election, November 8, 2022
Oakland, California

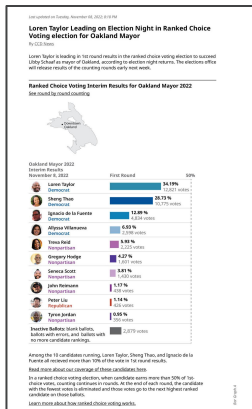**City of Oakland**
Mayor
You ranked 5 candidates.

1. **Treva Reid**
2. **Seneca Scott**
3. **Ignacio de la Fuente**
4. **Sheng Thao**
5. **Allyssa Villanueva**

- 1st, 2nd, and 3rd choices all get eliminated in early rounds
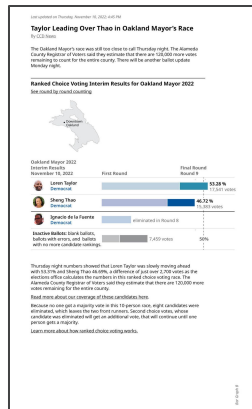- 4th choice wins election

We showed participants 4 sample results displays. Half saw bar graph results, and half saw table results
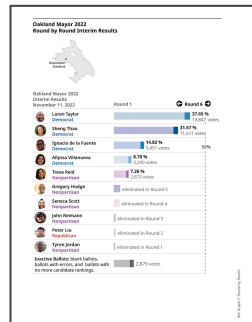

E-Night Results

Numbers reported on election night.
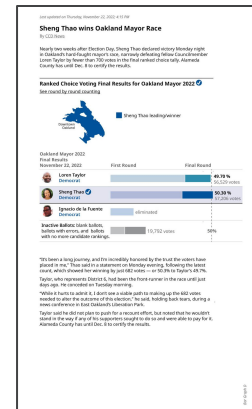
Interim Results

Numbers reported on 11/10 with 120,000 ballots outstanding
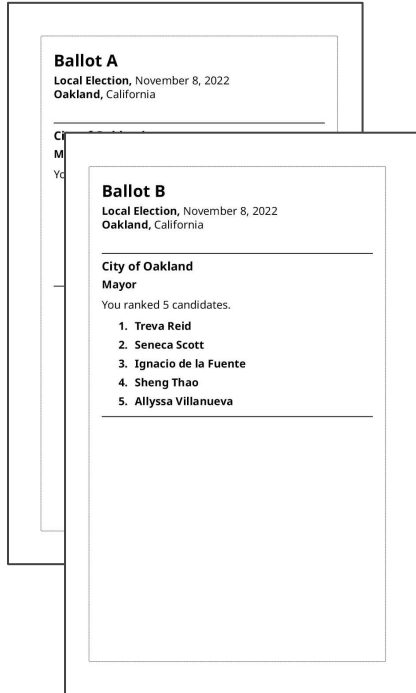
Round by Round

Interim results numbers "scrolling" between rounds. Rounds are numbered, instead of first/final.

Final Results

Final results from 11/22

There was no difference in participant understanding based on the ballot we assigned them

Ballot A
Local Election, November 8, 2022
Oakland, California

Ballot B
Local Election, November 8, 2022
Oakland, California

City of Oakland
Mayor
You ranked 5 candidates.

1. Treva Reid
2. Seneca Scott
3. Ignacio de la Fuente
4. Sheng Thao
5. Allyssa Villanueva

We tested with two ballots and two results displays

Ballot	Results style	Participants
Ballot A	Bar Graph	5
Ballot B	Bar Graph	5
Ballot A	Chart	4
Ballot B	Chart	6

We changed the Round by Round Table between Day 1 and Day 2 based on feedback

For Day 1, we designed a Round by Round table that focused on Round 6 with a scroll indicator

One participant expressed wanting to see all the numbers, so we changed this sample display for Day 2. Indicating a scroll on paper wasn't clear enough!

What we learned

Overall findings

There was no mention of maps or images

This is an improvement from R1 testing, where many participants asked for maps and candidate images to be included.

1 person briefly mentioned candidate images.
- *"You can match the face to the name"* —LH03

There was no difference in understanding between participants who saw bar graphs vs. tables

Participants had similar understanding of eliminated candidates, and leader/winner.

Only about half of participants were able to identify the status of pending or interim results

We have a lot of really clear indicators for final results. But, it was hard for participants to understand what *not* having those indicators meant before they saw them.

Level of familiarity with RCV had nothing to do with this.

- *"It looks like it's over. The final round is over...At the top it says there will be another update"* —EW03

Some participants felt confused by the term "interim results" and looked for more information

Some didn't understand the word interim when it was used on the page.

- *"It's interim. Don't know what that means. They're still counting votes so it's not final yet." —EW05*

A few participants looked for voter turnout numbers to understand the status of results

- *"I'm trying to see the rate of voter turnout" —EW02*
- *"It's the beginning because only 12,000 people voted" —LH02*
- *"133,000 people voted. It's complete. The difference in numbers" —LH01*

Almost all participants identified **when** candidates were eliminated. But, half couldn't identify **why**.

Level of familiarity with RCV had nothing to do with this.

Some people guessed (correctly) that the reason was a low number of votes, but they weren't sure:

- *"Maybe she didn't get that much percentage"* —EW06
- *"Maybe because numbers are so low"* —LH01
- *"Not sure maybe didn't get enough votes"* —FS08

Participants agreed that the round by round was useful, but it was unnecessary for some

All participants liked the round by round information.

- *"To me it gives step by step info. More confidence that what you're seeing is right"* —LH01
- *"This is where my candidate got eliminated and their votes got dispersed"* —EW03

Half found it unnecessary.

- *"This is confusing. I don't know if I want to look at all the rounds. Maybe just first and last to compare"* —LH03
- *"Yes, not necessary though. Someone more interested in elections would find it necessary."* —FS07

Participants want to see all the candidates, especially in final results, but not necessarily all the rounds.

All participants correctly identified the status of final results

Participants looked to different indicators that clearly told them who the winner was.

- *"There's a checkmark, and it has a blue background. It says winner"* —EW04, table
- *"Checkmark is a good indicator. Highlighting too."* —FS09
- *"Checkmark makes it clear but with interim results I didn't know how many ballots were left to count. Now I see, but it wasn't clear before"* —EW05

All participants correctly identified the winner

Some of the participants were confused about why and how the winner was chosen. Level of familiarity with RCV had nothing to do with their confusion.

- *"It's funny all of a sudden the second candidate won. Loren was winning all the way, how come she won?"* —LH03
- A few people asked for other information, like more detailed numbers, and breakdown by district, in order to understand why the early leader didn't end up winning.

In the final display, a few participants wanted the winning candidate to be at the top

We designed the sample displays to maintain a consistent order of candidates based on their 1st-round votes.

All of the participants who wanted the winning candidate at the top identified the correct winner, but were confused by the order.

- *"She should be moved to the top to avoid confusion."* —LH04
- *"She won but why is she second?"* —FS07

Bar graph visuals in RCV elections with more than two rounds are confusing

Oakland Mayor 2022
Final Results
November 22, 2022
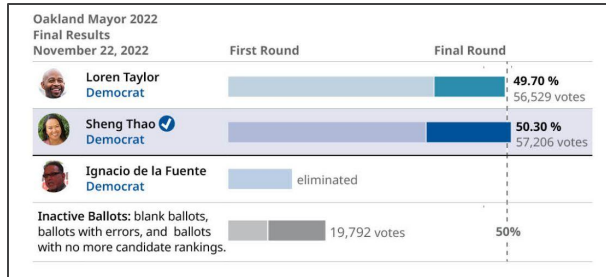
There is a limit to how much information a bar graph can communicate before the segments get too small to see or label.

Half of the participants who saw bar graphs were confused by what the color saturation meant. These participants did not correlate degree of saturation to rounds.

- *"Bars are confusing. Why does it change shades?" —FS01*
- *"You need to explain the shading" —FS02*

Participants were also confused by the labels "First Round" and "Final Round."

A few participants mentioned inactive ballots (Wildcard)

We included a definition of inactive ballots in the visual.

"***Inactive Ballots****: blank ballots, ballots with errors, and ballots with no more candidate rankings.*"

For some participants that wasn't enough. Participants wondered what happens with the inactive ballots.

- *"There's a lot of inactive ballots. What's happening with them. I want to know"* —LH04

50% mark on bar graph caused confusion for some (wild card)

Oakland Mayor 2022 Interim Results, November 8, 2022 — First Round / 50%
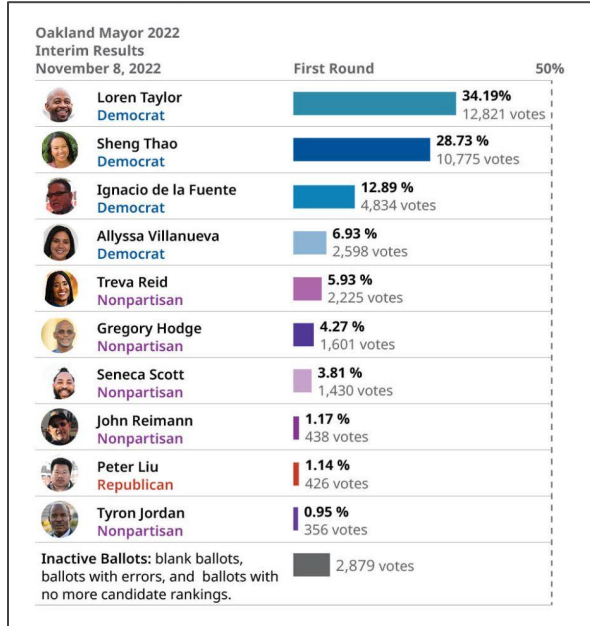
In samples with bars graphs, some participants were confused by the 50% mark.

Participants unfamiliar with RCV thought it signified the amount of votes counted or status of the results. They did not realize that a candidate needs 50% to win in a RCV election.

These participants asked for better explanation of the 50% mark, either as a definition or a footnote.

- *"I'm not sure what the percentages are talking about, but I understand who is winning."* —LH04
- *"50% should say winner?"* —FS06

Best practices

Additions and clarifications based on this round of testing

Use multiple signifiers on final results

People associate the following indicators with winning/final results. **Do not** use any of these indicators until there is a final winner.

To indicate final results and the final winner, use multiple of the following:
- Check mark
- Highlight the winner
- Bold the winner's name
- Name winner in article title
- Place winner at the top of the visual
- Final round in the visual
- Color in the map and include a key

Include as much context in the visual as possible. People look there first, then at header, then at text.

Information about the contest

- Office
- Location
- Status of results

Information about RCV

- A definition of what inactive ballots are, and what happens with them
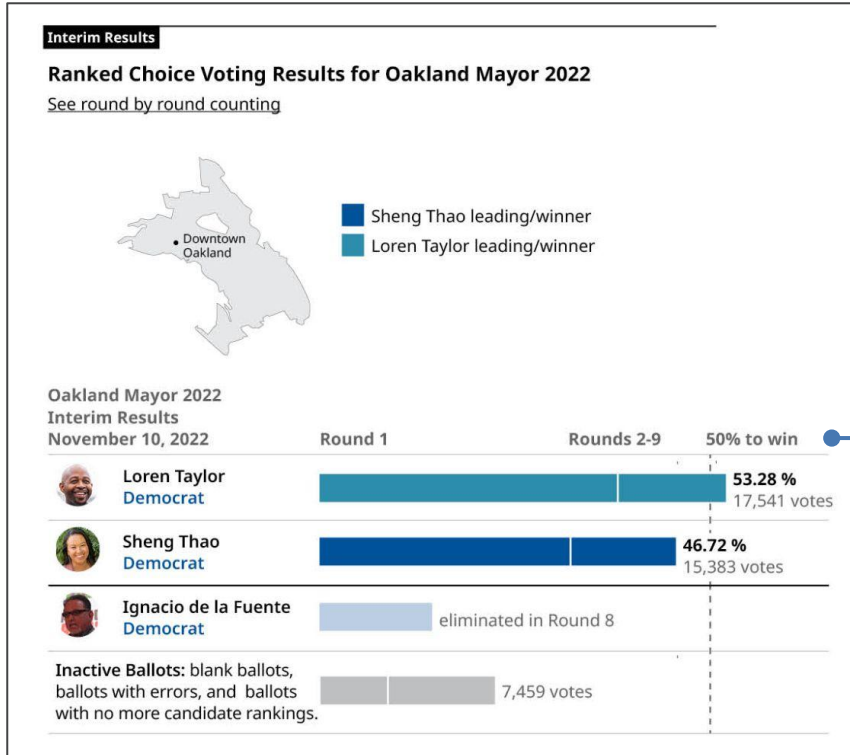- How many rounds there were by numbering them

Include "Eliminated in Round n" next to eliminated candidates in the visual

	Sheng Thao	D	28.73 %	10,775	**46.72%**	15,383	
	Ignacio de la Fuente	D	12.89 %	4,834	*eliminated in Round 8*		
	Allyssa Villanueva	D	6.93 %	2,598	*eliminated in Round 7*		
	Treva Reid	N	5.93 %	2,225	*eliminated in Round 6*		
	Gregory Hodge	N	4.27 %	1,601	*eliminated in Round 5*		
	Seneca Scott	N	3.81 %	1,430	*eliminated in Round 4*		
	John Reimann	N	1.17 %	438	*eliminated in Round 3*		
	Peter Liu	R	1.14 %	426	*eliminated in Round 2*		
	Tyron Jordan	N	0.95 %	356	*eliminated in Round 1*		

Treva Reid Nonpartisan		**7.26 %** 2,672 votes
Gregory Hodge Nonpartisan		eliminated in Round 5
Seneca Scott Nonpartisan		eliminated in Round 4
John Reimann Nonpartisan		eliminated in Round 3
Peter Liu Republican		eliminated in Round 2
Tyron Jordan Nonpartisan		eliminated in Round 1

Define 50% mark in bar graphs

Interim Results

Ranked Choice Voting Results for Oakland Mayor 2022

See round by round counting

Downtown Oakland

■ Sheng Thao leading/winner
■ Loren Taylor leading/winner

Oakland Mayor 2022
Interim Results
November 10, 2022   Round 1   Rounds 2-9   50% to win

Loren Taylor
Democrat
53.28 %
17,541 votes

Sheng Thao
Democrat
46.72 %
15,383 votes

Ignacio de la Fuente
Democrat
eliminated in Round 8

Inactive Ballots: blank ballots, ballots with errors, and ballots with no more candidate rankings.
7,459 votes

"50% to win"

Or, in a multi winner contest whatever percentage is needed to win.

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If possible include all candidates, even in final results

People want to see
all the candidates

Oakland Mayor 2022 Final Results November 22, 2022		First Round		Final Round	
Candidate	Party	Percent	Votes	Percent	Votes
Loren Taylor	D	33.07 %	41,510	49.70 %	56,529
Sheng Thao ✓	D	31.79 %	39,909	50.30 %	57,206
Ignacio de la Fuente	D	10.27 %	12,893	eliminated	
Allyssa Villanueva	D	8.72 %	10,949	eliminated	
Treva Reid	N	6.08 %	7,627	eliminated	
Gregory Hodge	N	4.62 %	5,798	eliminated	
Seneca Scott	N	2.98 %	3,745	eliminated	
John Reimann	N	1.01 %	1,268	eliminated	
Peter Liu	R	0.76 %	960	eliminated	
Tyron Jordan	N	0.69 %	862	eliminated	
Inactive Ballots: blank ballots, ballots with errors, and ballots with no more candidate rankings.			8,005		19,792
Total reported					133,527

Make it easy for people to access additional information

People want different amounts and types of information to help them understand how the winner won and how the contest went. It should be easy for people to access this information when they're curious. If it isn't, they will go back to Google to find it!

If the information isn't on the results display, include easy to access links to:

- Round by round numbers with all candidates and all available rounds included
- Additional information about the candidates. For example, "Read more about our coverage of the candidates"
- Explanations of RCV. For example, "Learn more about how ranked choice voting works"

Select a visual display based on the number of rounds reported

Both tables and bar graphs can accurately communicate the winner of many candidate contests. But this research showed that bar graphs are confusing when communicating many round contests.

- If the contest is 2 rounds or less, use a table or a bar graph.
- If the contest is 2 or more rounds, avoid bar graphs. This round of research found, tables are better at communicating many candidate, many round RCV contests.

More testing is needed to understand how many rounds a bar graph can communicate accurately, and whether they are effective for communicating rounds at all.

In final results, put the winner in the top row of the data visualization

Label the rounds with numbers

When the results are final, change the last round label to "Final Round." People assume that final round means final results, even in labelled interim or unofficial results.

Unofficial results

Final results

Thank you

Fernando Sanchez
fernando@civicdesign.org

Emma Werowinski
emma@civicdesign.org

civicdesign.org
@civicdesign

Center for
Civic Design