

Research Report

Ballot design research

Exploring reactions to proportional
representation ballots

October 27, 2025

**Center for Civic
Design**



What's inside this report

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About this research

Research goals and how we tested



Why we did this research

The problem we see

Winner-take-all is the most common voting method in the US.

Adopting proportional representation (PR) will require helping voters understand PR.

There is currently little research on PR ballot design.

Our goal

We wanted to learn:

- What PR ballots communicate about the contest
- What mental models voters use to mark ballots
- How to design a PR ballot that makes voters feel confident that they marked correctly and their votes will be counted accurately



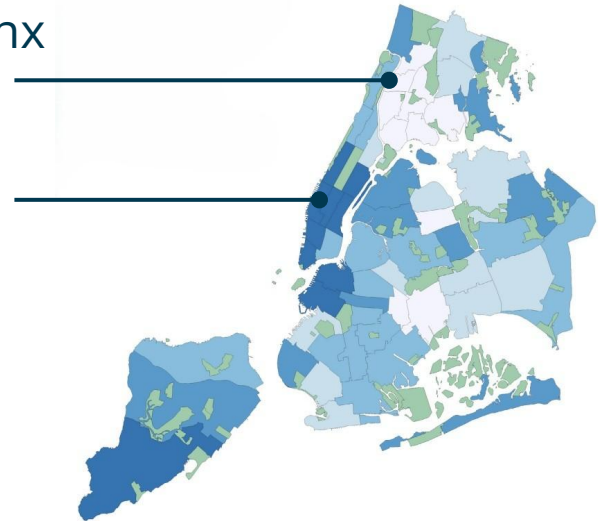
Methodology snapshot

Method: Usability tests with 6 ballots.

Where: Neighborhoods in New York City
with high and low levels of voter turnout

Fordham Heights, Bronx
(43-51% turnout)

Midtown Manhattan
(66-78% turnout)



Our participants

We talked to 24 New Yorkers.

We talked to a diverse group.

- Their ages ranged from 20s to over 60.
- There were more men than women.
- They were multiracial, black, white, and Latino.

They had a variety of voting habits.

- All were registered and most voted recently.
- Half voted in the June 2025 NYC mayoral primary that used ranked choice voting.
- Around 50% vote in all elections; 25% vote in major elections.



We tested 6 contests total

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tres Leches Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Churros Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watermelon Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Ice Cream Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mango Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Chip Cookie Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 ranking ballots

Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 cumulative ballots

Favorite Dessert	
Vote for as many candidates as you approve of	
<input type="checkbox"/>	Banana Bread Cake Party
<input type="checkbox"/>	Baklava Cake Party
<input type="checkbox"/>	Tres Leches Cake Party
<input type="checkbox"/>	Churros Cake Party
<input type="checkbox"/>	Watermelon Fruit Party
<input type="checkbox"/>	Chocolate Ice Cream Chocolate Party
<input type="checkbox"/>	Baklava Cake Party
<input type="checkbox"/>	Mango Fruit Party
<input type="checkbox"/>	Chocolate Chip Cookie Chocolate Party
<input type="checkbox"/>	Write-in

Favorite Dessert	
Vote for as many candidates as you approve of	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Banana Bread Cake Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Baklava Cake Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Tres Leches Cake Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Churros Cake Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Watermelon Fruit Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Chocolate Ice Cream Chocolate Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Baklava Cake Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Mango Fruit Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Chocolate Chip Cookie Chocolate Party
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Write-in

2 approval ballots

We tested different target areas for marking ease

Favorite Dessert						Favorite Dessert								
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice	Distribute 5 votes any way you want. You can give multiple votes to the same candidate.								
	1	2	3	4	5									
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Favorite Dessert						Favorite Dessert								
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice	Vote for as many candidates as you approve of								
	1	2	3	4	5									
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Favorite Dessert						Favorite Dessert								
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.														
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Favorite Dessert	
Vote for as many candidates as you approve of	
<input checked="" type="checkbox"/>	<input type="checkbox"/> Banana Bread Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Baklava Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Tres Leches Cake Party

Ovals on the ranking elect 1 ballot vs checkboxes on other ballots

Helper text in target areas on 1 cumulative and 1 approval ballot

We tested elements to signal number elected

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
1	2	3	4	5	
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tres Leches Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice
1	2	3	4	5	
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dark lines on the ranking ballots

Favorite Dessert		Favorite Dessert	
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.		Vote for as many candidates as you approve of	
Banana Bread Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	Banana Bread Cake Party
Baklava Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	Baklava Cake Party
Tres Leches Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	Tres Leches Cake Party

Favorite Dessert		Favorite Dessert	
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.		Vote for as many candidates as you approve of	
Banana Bread Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	Banana Bread Cake Party
Baklava Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	Baklava Cake Party
Tres Leches Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	Tres Leches Cake Party

Icons on cumulative and approval ballots



How we tested

Participants marked and compared ballots.

Participants voted on 4 ballots with minimal instructions in varying order.

- They voted on the 2 ranking ballots, 1 cumulative, and 1 approval ballot.
- We observed behavior and asked how votes were counted and how many were elected.

Next, they compared the 2 final ballots.

To wrap up, we asked if they were confident:

- They marked their ballots accurately
- Votes would be counted as they intended



The big takeaways



Elect 1 is a strong mental model, but voters are interested in ballots that allow more choices.



The mental models of 1 elected and ranking strongly affected interpretations of ballots and confidence levels in New York City.

Ballots that did not feel familiar to participants raised concerns about legitimacy, uninformed voters, and accuracy in counting.



Design elements without instructions are not enough for participants to mark correctly and to feel confident in marking.

Participants were enthusiastic about ballots that made them feel like they had increased freedom in how to choose candidates.



What we learned: Ballot designs

Participants voted on and reacted to ballots



RCV is (now) a mental model for NYC voters

Participants identified both ranking contests as RCV and were comfortable with both.

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Elect 1: "This was consistent with my expectations. It was hard to misunderstand."

Elect 3: "This is the same theory, 1 to 5 choices."



Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tres Leches Cake Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Churros Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watermelon Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Ice Cream Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mango Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Chip Cookie Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

There were a few concerns with RCV

A small number of participants raised issues with:

- multiple votes per voter
- general confusion with ranking

“Vote 5 times instead of 1 is time consuming. People are prone to filling in mindlessly and it can result in mistakes in who gets elected.”

“I’m totally baffled by RCV. I don’t know how it works. I want to write in the numbers. I hope I don’t mess up.”



Participants felt they had choice with cumulative ballots

They felt they had freedom in how they voted and that ballots were easy to understand.

"You have freedom to use all choices on one or spread them out."

"It's self-explanatory with the bold names and the columns."

Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

"I feel confident you know what I like."

"This ballot is straightforward. It just works."

Favorite Dessert	
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.	
Banana Bread Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Write-in	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

One cumulative ballot felt familiar to some

A few participants saw similarities between the cumulative ballot with helper text and:

- one vote per voter
- ranking contests

“This is fine. It’s similar to RCV. It’s not challenging to use.”

“I could get behind this. I give votes to one candidate and that’s consistent with how I’ve always voted.”



Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	1	1	1	1	1
Baklava Cake Party	1	1	1	1	1
Tres Leches Cake Cake Party	1	1	1	1	1
Churros Cake Party	1	1	1	1	1
Watermelon Fruit Party	1	1	1	1	1
Chocolate Ice Cream Chocolate Party	1	1	1	1	1
Baklava Cake Party	1	1	1	1	1
Mango Fruit Party	1	1	1	1	1
Chocolate Chip Cookie Chocolate Party	1	1	1	1	1
Write-in	1	1	1	1	1

Cumulative voting was confusing for others

Some participants had concerns about the layout and counting votes.

"I don't really understand. I thought it should be just one box. When I saw many boxes, it's confusing."

"I don't know if the votes have the same weight. Or do the columns have weight? I know what boxes correspond to what answer, but I don't know what the value is."



Approval ballots made choosing easier for some

Participants liked the simplicity of selecting and freedom to mark as desired.

"I like that it gives more of a sense of what you absolutely don't like."

"For someone who gets overwhelmed, you can mark how you want without getting distracted by the columns."

Favorite Dessert	
Vote for as many candidates as you approve of	
<input type="checkbox"/>	Banana Bread Cake Party
<input type="checkbox"/>	Baklava Cake Party
<input type="checkbox"/>	Tres Leches Cake Cake Party
<input type="checkbox"/>	Churros Cake Party
<input type="checkbox"/>	Watermelon Fruit Party
<input type="checkbox"/>	Chocolate Ice Cream Chocolate Party
<input type="checkbox"/>	Baklava Cake Party
<input type="checkbox"/>	Mango Fruit Party
<input type="checkbox"/>	Chocolate Chip Cookie Chocolate Party
<input type="checkbox"/>	Write-in

Favorite Dessert	
Vote for as many candidates as you approve of	
<input checked="" type="checkbox"/> <input type="checkbox"/>	Banana Bread Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Tres Leches Cake Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Churros Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Watermelon Fruit Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Chocolate Ice Cream Chocolate Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Mango Fruit Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Chocolate Chip Cookie Chocolate Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Write-in

"There's less chance of analysis paralysis. You get the idea, yes or no."

"This is nice. It doesn't force me to pick 5. Select as few or as many as you want."

Cumulative and approval led to legitimacy concerns

The mental model of 1 vote and the concept of approval were barriers.

Favorite Dessert	
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.	
Banana Bread Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

"This seems antithetical to the nature of voting. You vote once giving multiple to 1 candidate."

Favorite Dessert	
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.	
Banana Bread Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Baklava Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Tres Leches Cake Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1

"Too much ranking isn't voting. It's 1 person 1 vote in this country."

Favorite Dessert	
Vote for as many candidates as you approve of	
<input type="checkbox"/>	Banana Bread Cake Party
<input type="checkbox"/>	Baklava Cake Party
<input type="checkbox"/>	Tres Leches Cake Cake Party

"It's deceptive because it's not clear. You'll get a bunch of reasoning. Approve of what?"

Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

One approval ballot especially caused mistrust

Concerns included:


- uninformed voters
- ballot counting confusion
- selecting choices as opposed to voting

“People wouldn’t use it to be impactful. People would feel less responsible for the outcome.”

“I wouldn’t fill it out completely because how are the votes counted. Does an X remove a vote for someone?”

“This seems more like a survey than an election.”



 Favorite Dessert		
Vote for as many candidates as you approve of		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Banana Bread Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tres Leches Cake Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Churros Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Watermelon Fruit Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Chocolate Ice Cream Chocolate Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Mango Fruit Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Chocolate Chip Cookie Chocolate Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Write-in

The same approval ballot suggested 1 to be elected

Two participants questioned number elected. One used the icons on this ballot to determine number elected.

"I still think 1 elected. But maybe it's all of them. It's an election so there would only be 1 winner. But the wording and design imply that all could win. This one I don't have an expectation of 1 winning."

"I think 3 elected because of the icons at the top. Icons are who you're voting on."

Participants felt confident in marking

Most participants felt confident they marked ballots without error.

A few had concerns about *non-ranking* ballots because:

- there were too many choices
- they did not understand the voting method
- there weren't instructions for marking

"I wasn't confident, too many choices, not understanding the instructions. You want to walk in knowing what you want to do and walk out knowing you did that."

"I know I did what I was asked to do but don't know what the goal is. I don't know who I'm giving more credit to."

"For ovals, they give a sample on the real ballot. For squares, you need to show me how to fill it in."



Unfamiliar contests caused concern with counting

Some participants doubted votes would be counted accurately in cumulative and approval contests.

They were unsure:

- how these contests work
- if other voters would vote responsibly

"It's not good to distribute votes among multiple. It's prone to people not thinking about their candidate or where they stand."

Other participants said they were confident with ballots regardless of the contest.

They referenced trust in the electoral process and a lack of issues while voting previously.

"I feel confident with all of them. That's just sore losers when the candidate they voted for doesn't win the election."



Reactions to design elements

Participants reacted to:

- dark lines and icons for number elected
- different target areas for marking



Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tres Leches Cake Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Churros Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watermelon Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Ice Cream Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mango Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Chip Cookie Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dark lines signal importance but need

context

Without instructions, participants interpreted dark lines around ranking columns as:

- emphasis on top choices for voters
- information about counting methods

"It's trying to tell me out of top 3 to help focus on the top 3 choices."

"Are the 1st choice and top 3 choices weighted higher?"



Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tres Leches Cake Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Churros Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watermelon Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Ice Cream Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mango Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Chip Cookie Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dark lines around 3 ranks caused some confusion

No participants complained about the dark line around the first-choice column. A few disliked the dark line around 3 columns, possibly because the design does not align easily with the model of 1 elected.

"I don't know what the dark line is. I don't like this one. The dark line looks like someone doesn't care to fix it or didn't notice what's going on. It's unprofessional."



The icons did not stand out on most ballots

Participants ignored them or thought they were decoration.

"I noticed the icons, but I have no idea what that means."

"I didn't pay attention to the icons at all. I thought it was decoration."

The image shows three overlapping ballot examples for a 'Favorite Dessert' election. Each ballot has a title bar with three person icons and the text 'Favorite Dessert'. Below the title bar is an instruction: 'Distribute 5 votes any way you want. You can give multiple votes to the same candidate.' The candidates listed are Banana Bread Cake Party, Baklava Cake Party, and Tres Leches Cake Party. The first ballot shows empty checkboxes for each candidate. The second ballot shows the number '1' in each of the five checkboxes for each candidate. The third ballot shows empty checkboxes for each candidate.

One participant interpreted icons on an approval ballot as number elected. This is the same ballot that made two question the possibility of more than 1 elected.

This ballot example shows a title bar with three person icons and the text 'Favorite Dessert'. Below the title bar is the instruction: 'Vote for as many candidates as you approve of'. The candidates listed are Banana Bread Cake Party, Baklava Cake Party, and Tres Leches Cake Party. Each candidate has a checked checkbox followed by an unchecked checkbox.

"I think 3 elected because of the icons at the top. Icons are who you're voting on."

Helper text in target areas caused confusion

Participants were unsure what to do with pre-printed marking areas.

Some thought target areas had already been marked.

“Having squares already filled out is confusing. How to replicate what’s there? People are not used to seeing squares filled.”

Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	1	1	1	1	1
Baklava Cake Party	1	1	1	1	1
Tres Leches Cake Cake Party	1	1	1	1	1
Churros Cake Party	1	1	1	1	1
Watermelon Fruit Party	1	1	1	1	1
Chocolate Ice Cream Chocolate Party	1	1	1	1	1
Baklava Cake Party	1	1	1	1	1
Mango Fruit Party	1	1	1	1	1
Chocolate Chip Cookie Chocolate Party	1	1	1	1	1
Write-in	1	1	1	1	1

Favorite Dessert	
Vote for as many candidates as you approve of	
<input checked="" type="checkbox"/> <input type="checkbox"/>	Banana Bread Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Tres Leches Cake Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Churros Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Watermelon Fruit Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Chocolate Ice Cream Chocolate Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Mango Fruit Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Chocolate Chip Cookie Chocolate Party
<input checked="" type="checkbox"/> <input type="checkbox"/>	Write-in

“This is telling me which one I don’t want. It has already chosen for me.”

Favorite Dessert	
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.	
Banana Bread Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Baklava Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Tres Leches Cake Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Churros Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Watermelon Fruit Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Baklava Cake Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Mango Fruit Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1
Write-in	<input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1 <input type="checkbox"/> 1

1s in target areas compete with the ranking model

Participants assumed the ballot was a ranking contest and were confused.

Repeating 1s did not make sense when the mental model was ranking from 1 to 5.

"It's tricky because it's hard to understand the instructions. It says multiple votes but says 1, 1, 1. It makes me not confident of marking correctly."

"How do they know what the 1, 2, 3 choice is?"

Favorite Dessert		
Vote for as many candidates as you approve of		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Banana Bread Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tres Leches Cake Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Churros Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Watermelon Fruit Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Chocolate Ice Cream Chocolate Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Baklava Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Mango Fruit Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Chocolate Chip Cookie Chocolate Party
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Write-in

Check marks and Xs in target areas prevent voting

Many participants were unable to vote on this ballot without additional instructions.

The target areas made them stop and ask questions or complain.

"You should explain what each box is intended for. Or use green and red for checks and Xs to show vote for or against."

"Do you have to cross X if you don't like it?"

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tres Leches Cake Cake Party	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Churros Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watermelon Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Chocolate Ice Cream Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Favorite Dessert	
Vote for as many candidates as you approve of	
<input checked="" type="checkbox"/>	<input type="checkbox"/> Banana Bread Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Baklava Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Tres Leches Cake Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Churros Cake Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Watermelon Fruit Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Chocolate Ice Cream Chocolate Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Mango Fruit Party
<input checked="" type="checkbox"/>	<input type="checkbox"/> Chocolate Chip Cookie Chocolate Party

Instructions are necessary to avoid marking issues

Many participants had issues with marking, including:

- confusion around checkboxes
- filling in checkboxes while complaining that it took too long
- making marks that can cause issues with reading by scanners

"I don't like the squares. Do I make a check or fill in like an oval?"

"With RCV it's evident you need to fill the oval. This, I want to X or check. I would be confused. The expectation is still to fill in the ballot."

How we conducted this research

Testing sessions and participants



How we recruited

We used data on neighborhoods with highest and lowest voter turnout levels in the 2024 election.*

We posted on Craigslist and emailed community boards in neighborhoods.

We screened participants for:

- voting experience in at least one recent election
- diversity in age, gender, race

We had 14 participants in Manhattan and 10 in the Bronx.



How we conducted testing sessions

First, we asked participants about their experiences voting.

We learned what they know about elections and attitudes towards voting.

They marked 4 contests (2 ranking, 1 approval, 1 cumulative).

We rotated the order of ballots that participants marked.

Ballots used desserts so we could observe quick and natural marking.
There were minimal instructions to surface interpretations of ballot design.

We asked for their reactions and how they thought votes would be counted.



Participants marked 4 contests

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 oval in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baklava Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tres Leches Cake Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Churros Cake Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watermelon Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Ice Cream Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mango Fruit Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate Chip Cookie Chocolate Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ranking elect 1

Favorite Dessert					
Rank up to 5 candidates. Mark only 1 square in each column.	choice	choice	choice	choice	choice
	1	2	3	4	5
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ranking elect 3

Favorite Dessert					
Distribute 5 votes any way you want. You can give multiple votes to the same candidate.					
Banana Bread Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baklava Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tres Leches Cake Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Churros Cake Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watermelon Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mango Fruit Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

cumulative


Participants marked 4 contests

 Favorite Dessert

Distribute 5 votes any way you want. You can give multiple votes to the same candidate.

Banana Bread Cake Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Baklava Cake Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Tres Leches Cake Cake Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Churros Cake Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Watermelon Fruit Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Chocolate Ice Cream Chocolate Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Mango Fruit Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Chocolate Chip Cookie Chocolate Party	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Write-in	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1


cumulative

 Favorite Dessert

Vote for as many candidates as you approve of

<input type="checkbox"/> Banana Bread Cake Party
<input type="checkbox"/> Baklava Cake Party
<input type="checkbox"/> Tres Leches Cake Cake Party
<input type="checkbox"/> Churros Cake Party
<input type="checkbox"/> Watermelon Fruit Party
<input type="checkbox"/> Chocolate Ice Cream Chocolate Party
<input type="checkbox"/> Mango Fruit Party
<input type="checkbox"/> Chocolate Chip Cookie Chocolate Party
<input type="checkbox"/> Write-in

approval

 Favorite Dessert

Vote for as many candidates as you approve of

<input checked="" type="checkbox"/> <input type="checkbox"/> Banana Bread Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/> Baklava Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/> Tres Leches Cake Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/> Churros Cake Party
<input checked="" type="checkbox"/> <input type="checkbox"/> Watermelon Fruit Party
<input checked="" type="checkbox"/> <input type="checkbox"/> Chocolate Ice Cream Chocolate Party
<input checked="" type="checkbox"/> <input type="checkbox"/> Mango Fruit Party
<input checked="" type="checkbox"/> <input type="checkbox"/> Chocolate Chip Cookie Chocolate Party
<input type="checkbox"/> <input type="checkbox"/> Write-in

approval



How we conducted testing sessions

Next, we asked participants to review the ballots.

We asked them what made voting easy or difficult, which ballot worked best, and how they would explain voting on that ballot to someone else.

We showed them the remaining cumulative and approval ballots.

We rotated which cumulative and approval ballots participants voted on and commented on.

We got their reactions and asked how many they thought would be elected and how votes would be counted.



How we conducted testing sessions

To wrap up, we assessed confidence.

We asked if any of the ballots felt similar to ones they had used in elections.

We also asked if they felt confident that they marked correctly and that their votes would be counted as intended.



Our participants: demographics

We had 24 participants total.

A few did not answer these questions.

Age range	
18 - 29	5
30 - 49	8
50 - 64	5
65+	4

Gender	
Male	13
Female	9

Race/ethnicity	
Multiracial	8
White	6
Black	4
Latino	1

Borough	
Manhattan	9
Bronx	8
Brooklyn	4
Other	1

Our participants: voting history

All 24 participants are registered to vote.

Voting frequency	
All or nearly all elections	13
State and national elections	6
Other	5

Most recent election	
2024 or later	19
2020 – 2023	4
2019 or earlier	1

NYC June 2025 primary	
Voted	13
Did not vote	11

First election	
2020s	3
2000s – 2010s	10
1980s – 1990s	6
1970s	2
Unsure	3

Why participants vote

We asked about motivations for voting. The top reasons were:

- candidates that represent them or evoke strong reactions
- the desire for change

"I want to make a change, to get the right candidate who will give back to the community."

"I'm motivated if I see a good candidate who actually represents my values."

"I vote because I like the candidate, or maybe extreme dislike."



Why participants vote

Participants also vote because of:

- issues important to them
- a sense of responsibility
- the desire to make an impact
- the ability to exercise their right

"I vote because of the issues important to me and my family, not just because of the party."

"I stay involved. I watch the news and I'm aware."

"I vote because women have the right to vote."



Thank you!

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