



Survey Says! Get Better Data with UX

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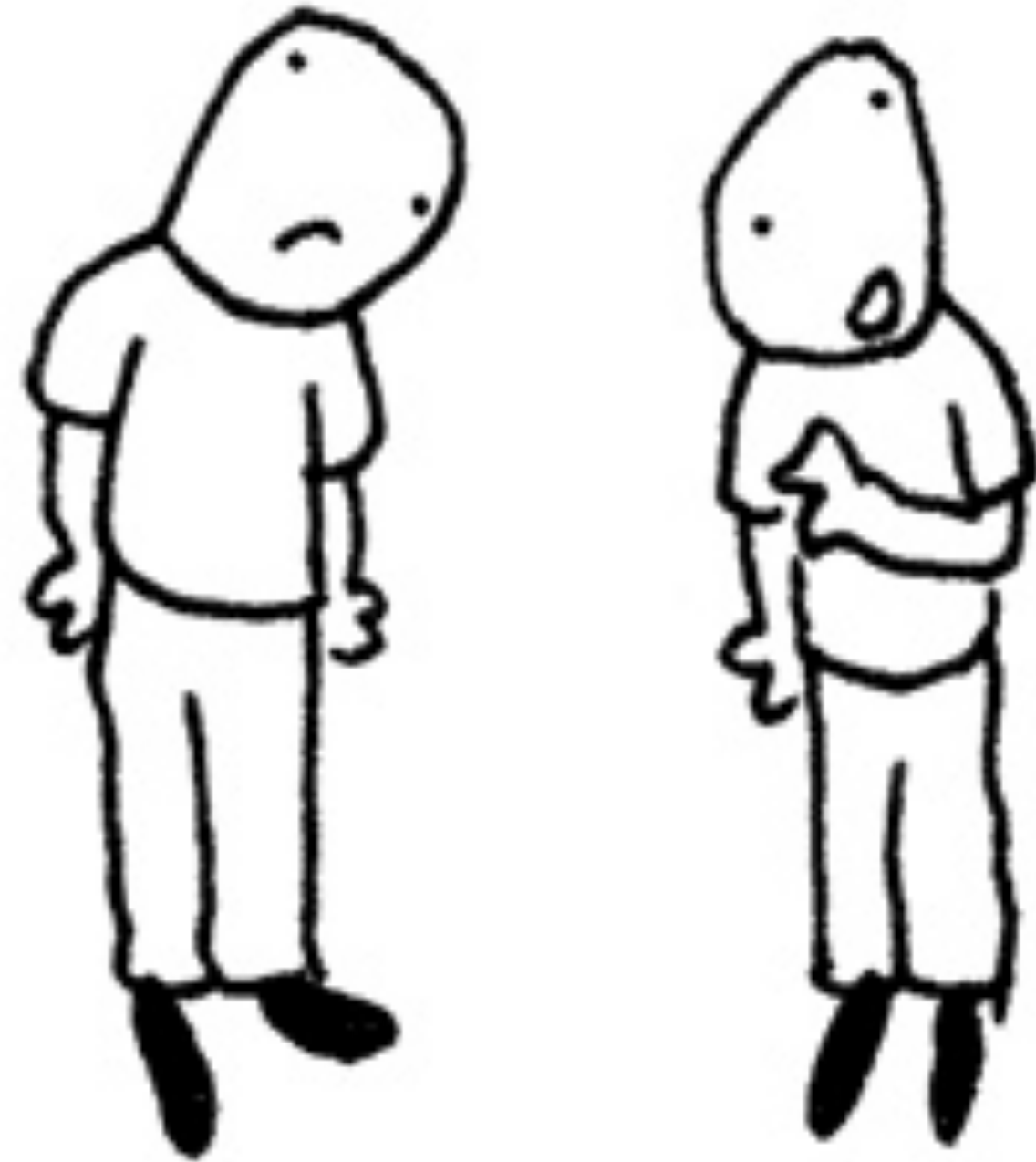
Market & UX Research Consultant

Curio Research



Thank you for being here!





you can't call
yourself a
"polymath" if
you only have
two talents
and one of
them is being
nervous

WHY

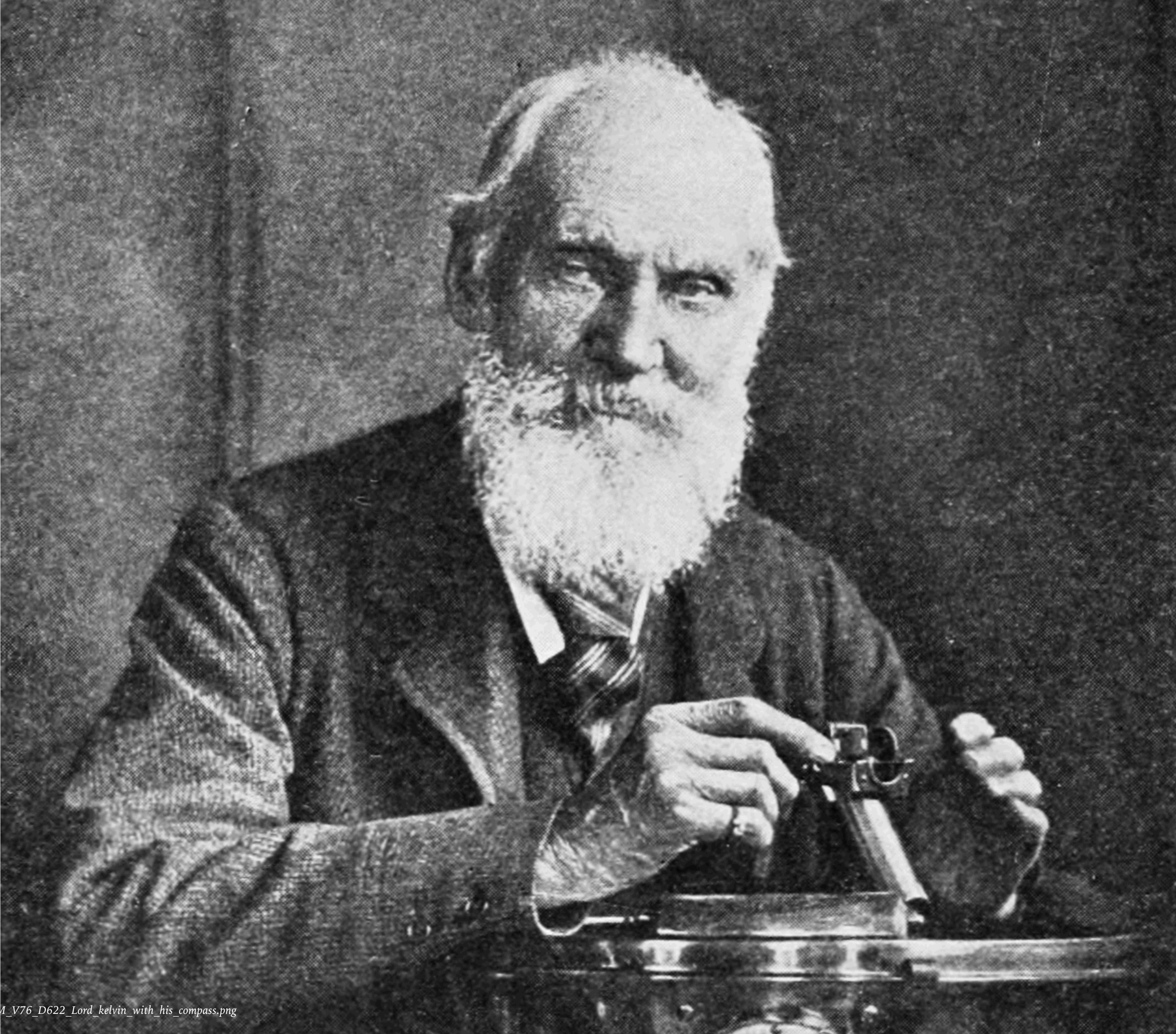
Surveys! What Are They Good For?

Absolutely Something

?



We love to send surveys



“

If you cannot
measure it,
you cannot
improve it.

”

LORD KELVIN





Google Consumer Surveys



aytm | ask your target market

surveygizmo

Toluna 
In touch with people

qualtrics


Typeform |

 **QuestionPro**
Online Research Made Easy™

 **askia**
software for surveys



voXco

Checkbox®

SurveyMonkey®

 **LimeSurvey**

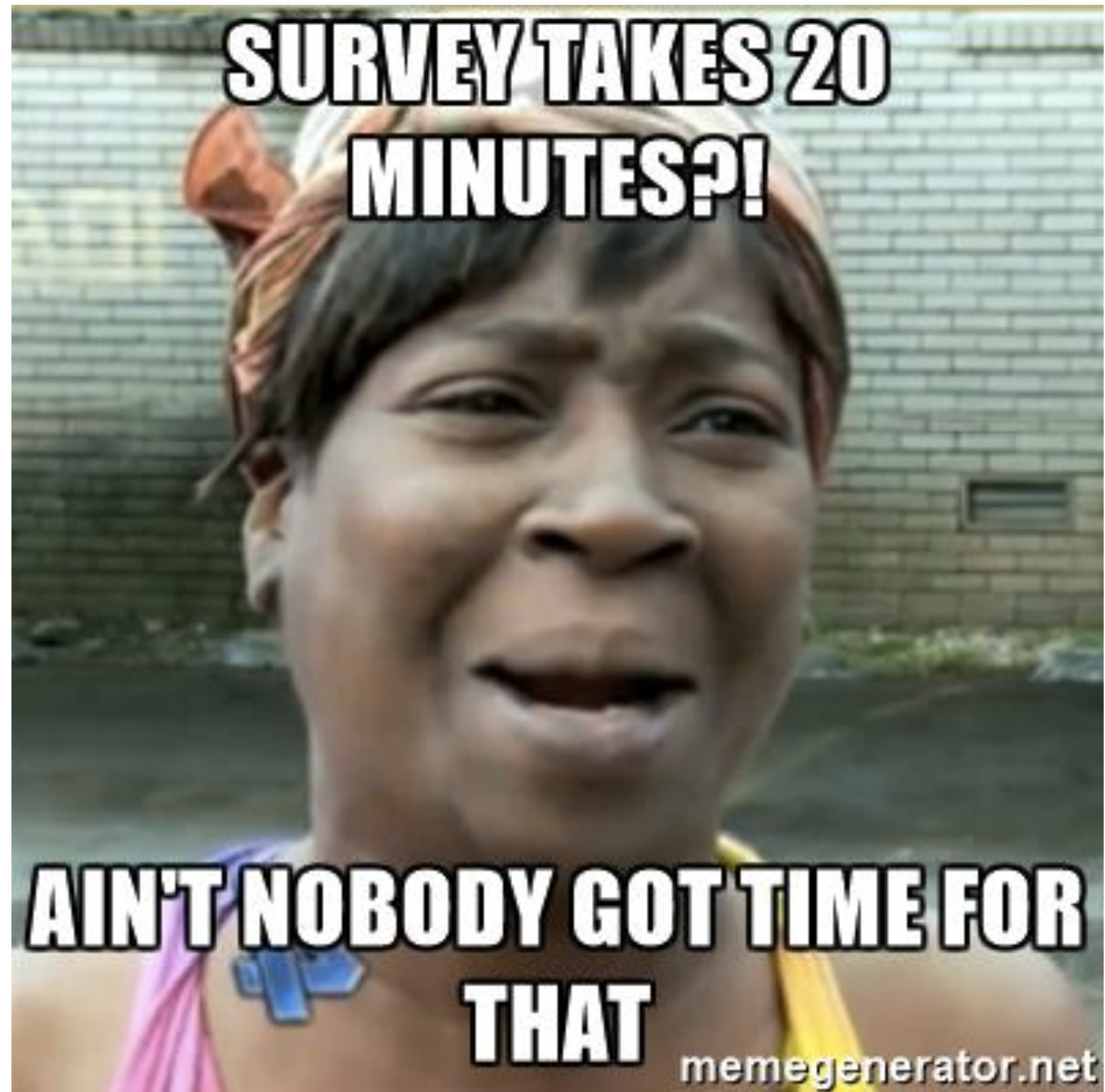
 **KINESIS | SURVEY**

A person's hands are visible at the bottom, holding a large, rectangular piece of brown cardboard. The cardboard has a sad face cutout in the center, consisting of two small, dark, curved lines for eyes and a single horizontal line for a mouth. The background is a red brick wall. The text "We hate to get surveys" is written in white, sans-serif font across the middle of the cardboard sign.

We hate to get surveys









WE WANT
"MORE
MONEY"

WE HAVE
BEEN
Santa claus
LONG ENOUGH
We want better wages
Raise your

EEDLE
STRIKE

25 cent
or
"BUST"

WE PRESSERS
-> DEMAND
HIGHER - WAGES
5 and 6¢ per DRESS

The background of the slide features a close-up, slightly blurred image of printed text. The visible words are 'study of verb', 'ine', and 'examina', which appear to be part of a larger sentence or list. The text is in a serif font and is oriented diagonally across the frame. A dark gray rectangular box is superimposed over the left side of the image, containing the title text.

What Makes a Good Survey?

Keep it short

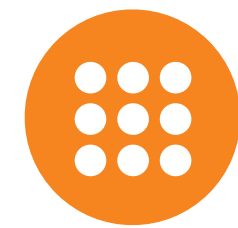


The shorter the better



HAVE A SINGULAR FOCUS

Keep the number of research objectives to a minimum.



USE QUANTITATIVE QUESTIONS

Open ended text response questions make the survey longer and more taxing on the respondent.



NO LONGER THAN 10 MINUTES TO TAKE

Fewer Questions = More Responses + More Completes






Mobile First

44% of SurveyMonkey surveys were taken on a mobile device last year*

*SurveyMonkey European Survey Research Association 2017 Presentation

Photo by [Olur Rahman](#) on [Unsplash](#)



Do you really need to ask that? Really? Are you sure?

If you knew this information, what would you do?

Make all questions tweet* length questions

Simply stated. Direct. Clear. Jargon free.

*Classic 140, let's not get started on 280



Be friendly
Not formal

The background of the image shows a grey surface with several rectangular sticky notes. Most are a muted olive green, but one in the bottom right is a lighter, yellowish-green and is being held by a hand with dark nail polish. The text is centered over the sticky notes.

Help respondents give you correct answers

Help Respondents Be Accurate

- **Make answer options exhaustive**
 - Think about and do some research to give respondents every possible option
- **Consider the ranges you offer carefully**
 - Respondents will interpret the ranges you give as typical of the population
 - Below average, average, above average
- **Don't expect respondents to remember anything**
 - Give specifics



Help Respondents Be Accurate

- **Offer an opt-out**
 - Other, None, Not Applicable
- **Let people enter in their own answer**
 - Other _____
 - Only use this if you actually plan to use the data



Do not make questions required

We can fix it!

Basic Survey Question

Do you have a non-human companion?

☐ Dog

☐ Cat

Basic Survey Question

What kind of pet do you have?

☐ Dog

☐ Cat

Basic Survey Question

What kind of pet do you have?

- ☐ Dog
- ☐ Cat
- ☐ Amphibian
- ☐ Reptile
- ☐ Rodent
- ☐ Fish
- ☐ Bird
- ☐ Other
- ☐ I don't have a pet

Basic Survey Question

What kind of pet do you have?

- ☐ Dog
- ☐ Cat
- ☐ Amphibian
- ☐ Reptile
- ☐ Rodent
- ☐ Fish
- ☐ Bird
- ☐ Other
- ☐ I don't have a pet

Basic Survey Question

What kind of pet do you have?

- ☐ Dog
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- ☐ Rodent
- ☐ Fish
- ☐ Bird
- ☐ Other
- ☐ I don't have a pet



RANDOMIZE

ANCHOR

Basic Survey Question

What kind of pet do you have?

- ☐ Dog
- ☐ Cat
- ☐ Amphibian
- ☐ Reptile
- ☐ Rodent
- ☐ Fish
- ☐ Bird
- ☐ Other
- ☐ I don't have a pet

Short question



Plain language



Exhaustive answer options



Allows multiple answers



Randomized and Anchored



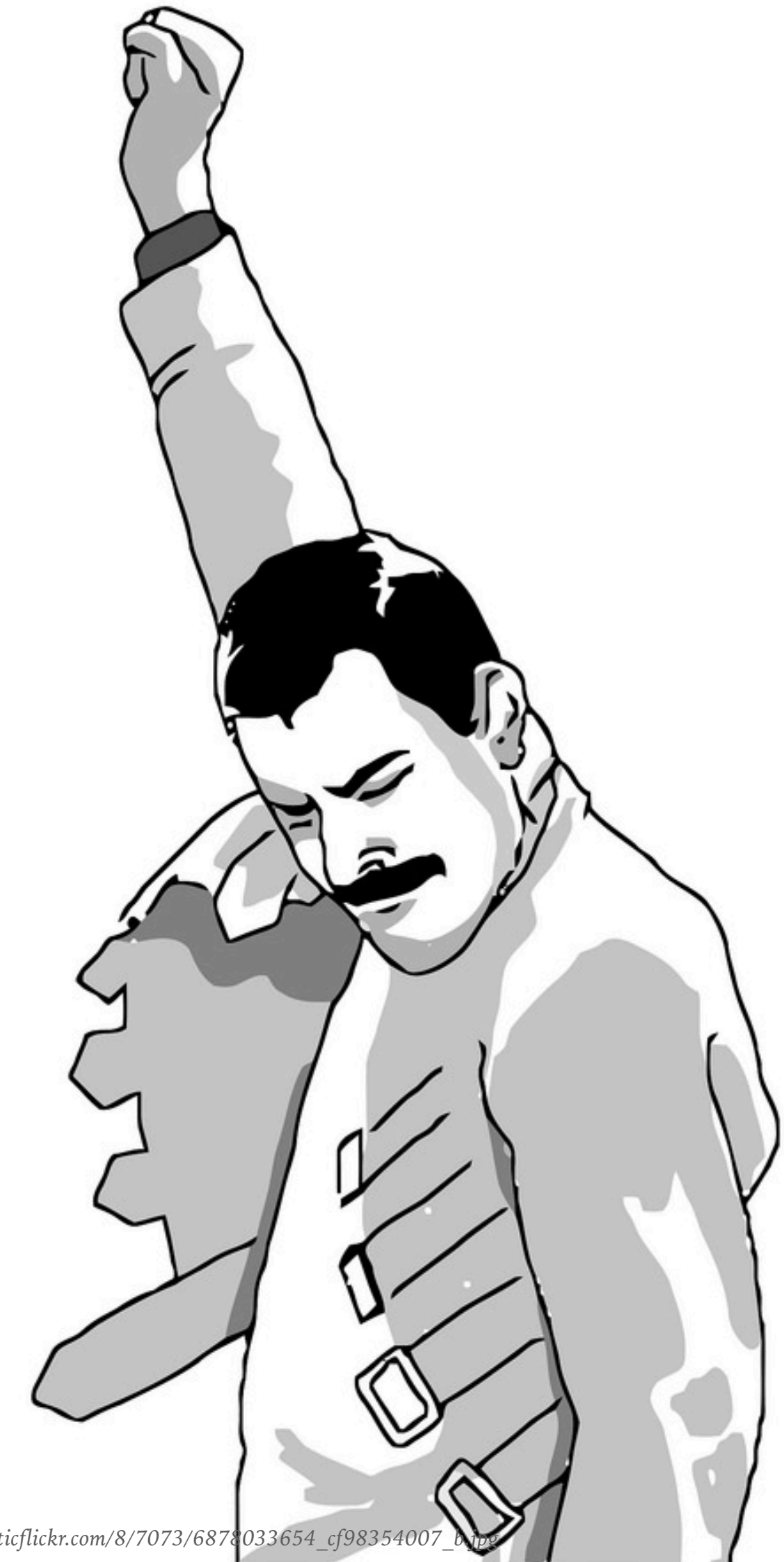
It's not mandatory



Basic Survey Question

Do you have a non-human companion?

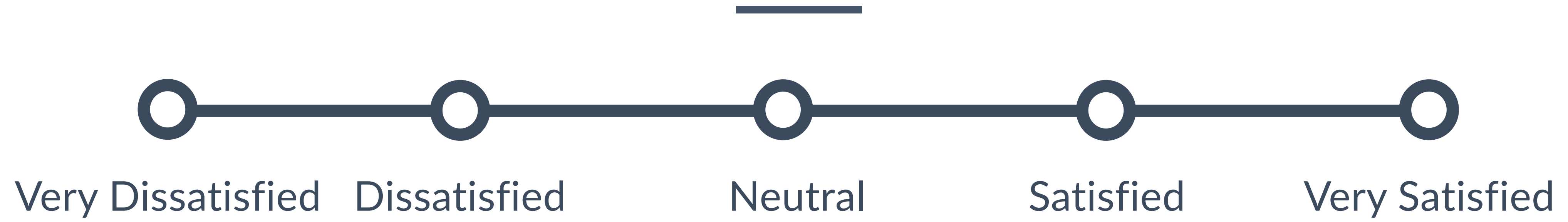
- ☐ Dog
- ☐ Cat
- ☐ Amphibian
- ☐ Reptile
- ☐ Rodent
- ☐ Fish
- ☐ Bird
- ☐ Other
- ☐ I don't have a pet





Scales

Scales



Scales

—



Very Dissatisfied Dissatisfied Neutral Satisfied Very Satisfied



Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied

Scales

—



Very Dissatisfied Dissatisfied Neutral Satisfied Very Satisfied



Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied



Very Dissatisfied Dissatisfied Plus Dissatisfied Somewhat Dissatisfied Neutral Negative Neutral Positive Somewhat Satisfied Satisfied Satisfied Plus Very Satisfied

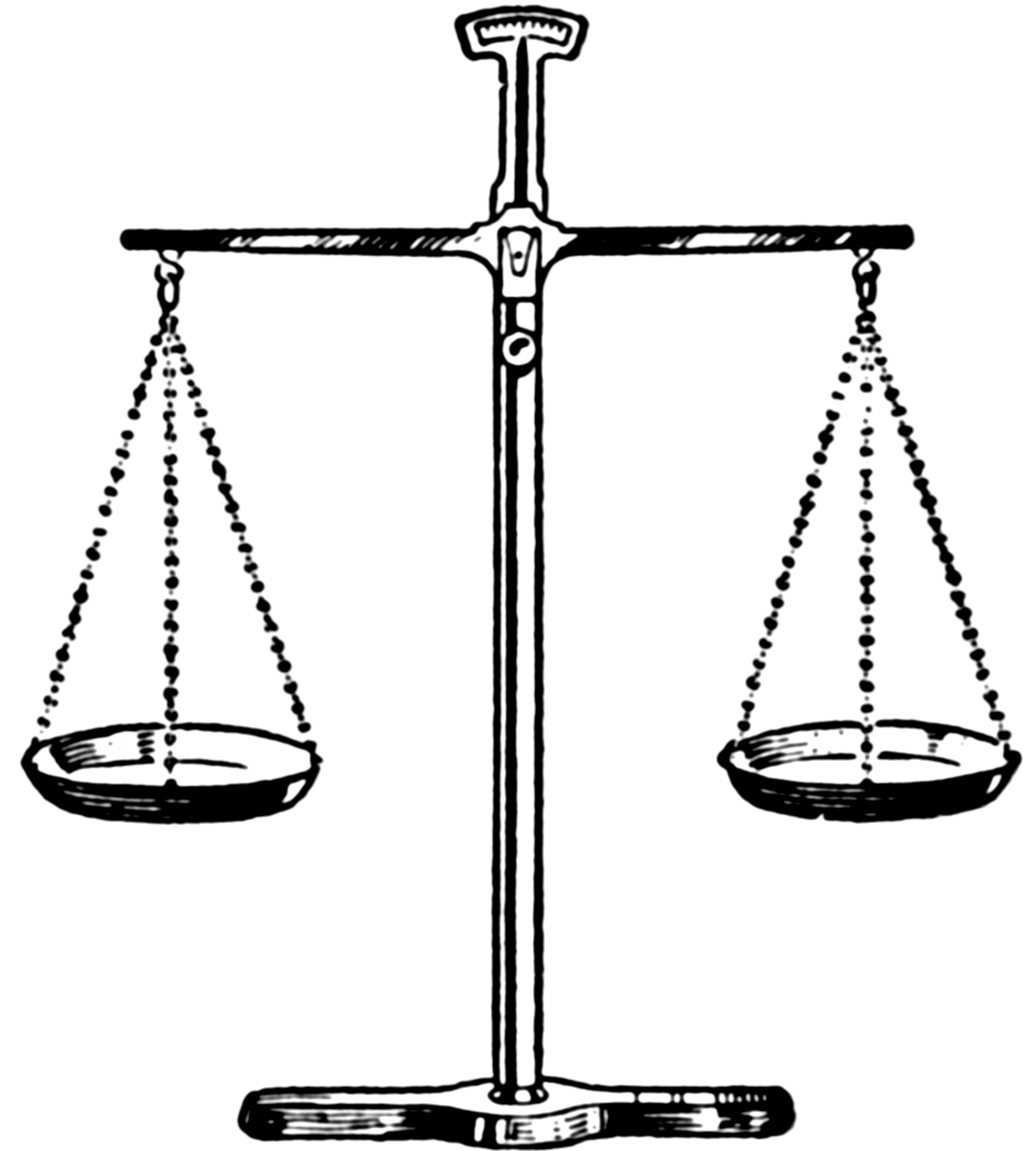
Scales



Neutral is a valid answer

Good scales are:

- Likert/Odd numbered
- Balanced
 - The same number of positive and negative options with a neutral option in the middle
- Vertical
 - Mobile first
- Labeled



We can fix it!

Scale Question

Please rate your level of satisfaction with this conference:



Scale Question

How is the conference going so far:



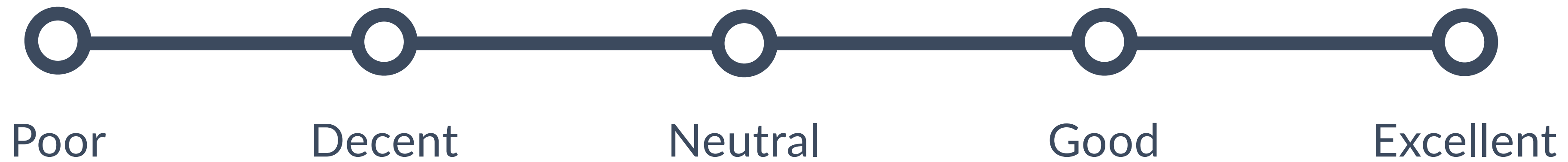
Scale Question

How is the conference going so far:



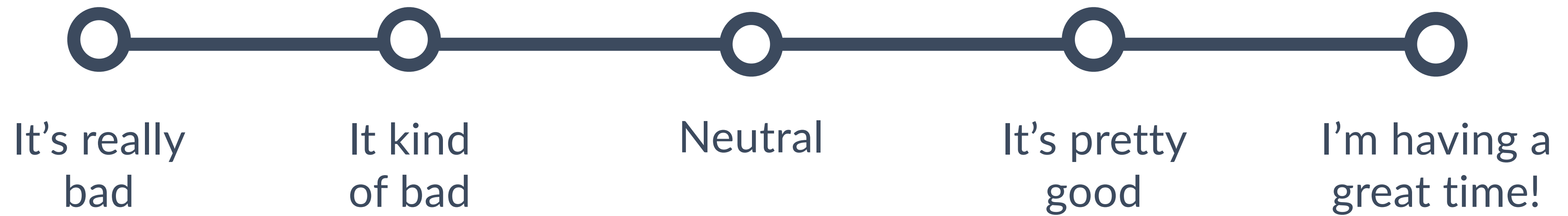
Scale Question

How is the conference going so far:



Scale Question

How is the conference going so far:



Scale Question

How is the conference going so far:

- ☐ I'm having a great time!
- ☐ It's pretty good
- ☐ Neutral
- ☐ It kind of bad
- ☐ It's really bad

Scale Question

How is the conference going so far:

- ☐ I'm having a great time!
- ☐ It's pretty good
- ☐ Neutral
- ☐ It kind of bad
- ☐ It's really bad

Short question



Plain language



Neutral option



Likert Scale



Balanced scale



Vertical



Scale Question

How is the conference going so far:

- ☐ I'm having a great time!
- ☐ It's pretty good
- ☐ Neutral
- ☐ It kind of bad
- ☐ It's really bad



Minimize grid usage

Relying on grids is cheating



	Strongly Agree									Strongly Disagree	N/A
	10	9	8	7	6	5	4	3	2	1	
The information about how to use Mobile Banking is helpful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobile Banking is available when I need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Mobile Banking pages load quickly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobile Banking makes managing my finances easier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident about finding my way around in Mobile Banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My account information is updated quickly in Mobile Banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobile Banking is secure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The amount of account history available in Mobile Banking is sufficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to easily transfer funds using Mobile Banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The response time of Mobile Banking on my mobile device meets my expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My account balances in Mobile Banking are accurate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to complete tasks using Mobile Banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was able to find the information I was looking for using Mobile Banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My account information in Mobile Banking is easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A group of people are sitting on white plastic chairs under palm trees at an outdoor event. The scene is dimly lit, suggesting dusk or dawn. The text 'Bias is real' is overlaid in large white letters, and 'Agree or Disagree?' is below it in smaller white letters, followed by a horizontal line.

Bias is real

Agree or Disagree?

Respondent Biases

Know your enemies

Acquiescence Bias

We just want to get along with everyone by being agreeable. Even people we've never met.

AVOID

Questions involving answers such as:

Yes/No

Agree/Disagree

True/False



Desireability Bias

We like appearing better than we actually are.

AVOID

Asking people to recall their own consumption habits. Find actual usage or purchase data instead.



Researcher Biases

Know your enemies

Sampling Bias

The sample for the survey doesn't reflect the population being researched.

USE

Demographic Quotas

Random Elements:

Random number generators

Dice



Research Bias

The point of view of the researcher interferes with the objectivity of the research.

USE

Word questions to be as neutral as possible

Obfuscate your purpose

Red Herring answers



We can fix it!

Neutral Question

Do you use Gmail?

☐ Yes

☐ No

Neutral Question

Which of these email services do you use?

- ☐ Gmail
- ☐ Hotmail
- ☐ Yahoo! Mail
- ☐ Outlook
- ☐ I have my own email server
- ☐ Other _____
- ☐ I don't use email

Neutral Question

Which of these email services do you use?

- ☐ Gmail
- ☐ Hotmail
- ☐ Yahoo! Mail
- ☐ Outlook
- ☐ I have my own email server
- ☐ Other _____
- ☐ I don't use email

Neutral Question

Which of these email services do you use?

- ☐ Gmail
- ☐ Hotmail
- ☐ Yahoo! Mail
- ☐ Outlook
- ☐ FantasticMail
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- ☐ Other _____
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Neutral Question

Which of these email services do you use?

- ☐ Gmail
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- ☐ Yahoo! Mail
- ☐ Outlook
- ☐ FantasticMail
- ☐ I have my own email server
- ☐ Other _____
- ☐ I don't use email

RANDOMIZE

ANCHOR

Neutral Question

Which of these email services do you use?

- ☐ Yahoo! Mail
- ☐ FantasticMail
- ☐ Gmail
- ☐ Outlook
- ☐ Hotmail
- ☐ I have my own email server
- ☐ Other _____
- ☐ I don't use email

Doesn't lead



Plain language



Data quality red herring



Allows multiple answers



Randomized and Anchored



It's not mandatory



Neutral Question

Which of these email services do you use?

- ☐ Outlook
- ☐ I have my own email server
- ☐ Gmail
- ☐ Yahoo! Mail
- ☐ Hotmail
- ☐ FantasticMail
- ☐ Other _____
- ☐ I don't use email



https://www.flickr.com/photos/meme_tn/6878030444

The background of the image is a dense, overlapping pile of US dollar bills. The bills are mostly one-dollar bills, with some two-dollar bills visible. They are scattered in various orientations, creating a textured, chaotic appearance. The colors are muted, with a blue-grey tint over the entire image. The word "Incentivize" is centered in the middle of the image in a large, white, sans-serif font. Below the word is a short, horizontal white line.

Incentivize

Incentives

Not necessarily difficult or expensive



METHODS

Online gift cards, account credit, random prize drawing, charitable donations... Get creative!



BETTER RESPONSE RATES

Mitigates non-response bias for better results.



DEMONSTRATES RESPECT

Shows you understand the value of respondents' time.





Open with gratitude Close with gratitude

And a final open end



BE GRACIOUS

Thank respondents for their participation at the opening and the closing.



BE TRANSPARENT

Tell them how the data will be used. Improve a product? Help a non-profit? Inform sponsors?



BE GENEROUS

Offer to share the results of the study with them when it's over.



BE OPEN

Present a final open end so they can share something you might have missed.



Testing Your Surveys

A woman and a man are seated at a desk in a room with a window and a radiator. The woman, on the left, is wearing a light-colored blazer and a patterned skirt, looking towards the man. The man, on the right, is wearing a dark t-shirt and light-colored pants, holding a white cup. A laptop on the desk displays a red screen with a flame-like graphic. The scene is dimly lit, with a blue tint. The text 'Usability Testing' is overlaid in white, with a horizontal line underneath the word 'Usability'.

Usability Testing

Usability Testing

Simple goals, simple process



SIMILAR TO UX USABILITY TESTING

Conduct a cognitive interview with a member of the target population.

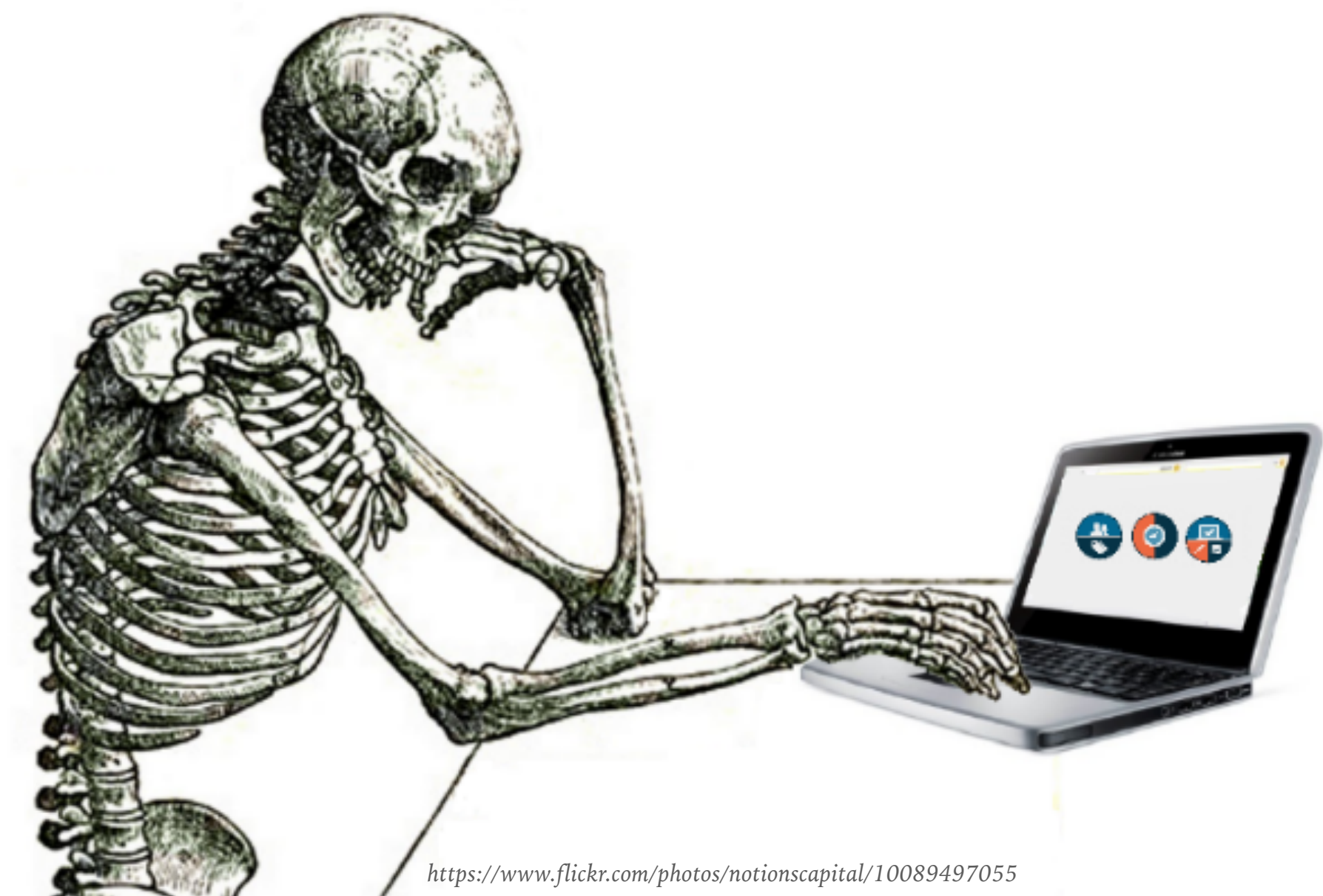
Someone unrelated to the project will do in a pinch.



COGNITIVE INTERVIEW

Have test respondent walk you through their thought process.

- Did they understand the questions?
- Did they offer other suggestions?
- How long did it take them to complete the survey?



A person is climbing a rock wall with various colorful holds. The climber is wearing a light blue t-shirt, dark shorts, and a climbing harness. They are reaching up with their right arm to grab a red hold. The wall is covered in many different shaped and colored holds, including red, blue, green, yellow, and orange. A rope is visible on the left side of the wall. The background is a blurred view of the climbing wall and the climber's legs.

Pilot Study

Pilot Study

A dress rehearsal for your survey



DEFINITION

A pilot study is like a dress rehearsal for your survey .



TEST DEPLOYMENT

- Recruiting process
- Invitation
- Response rate
- Completion rate
- Incentive fulfillment



TEST RESULTS

- Odd answer patterns
- To many 'other' answers
- Frequently skipped questions
- Time to complete



A Proper Sendoff

Respondent Sources

Where are they coming from?



INTERNAL

Avoid giving your customers survey fatigue. Track how often they get surveys.



EXTERNAL

Ask the provider about their quality controls:

- CAPTCHAs?
- Proxy server detection?
- Geo-IP validation?
- Other authentication measures?

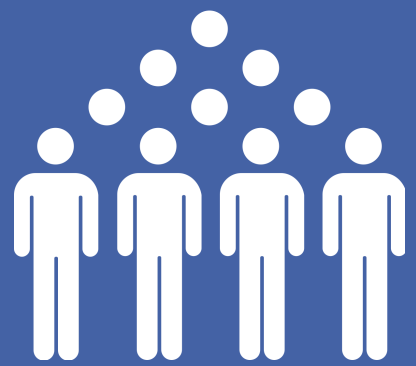


How many respondents do you need?

CI For	Sample Statistic	Margin of Error	Use When
Population mean (μ)	\bar{x}	$\pm z^* \frac{\sigma}{\sqrt{n}}$	X is normal, or $n \geq 30$; σ known
Population mean (μ)	\bar{x}	$\pm t_{n-1}^* \frac{s}{\sqrt{n}}$	$n < 30$, and/or σ unknown
Population proportion (p)	\hat{p}	$\pm z^* \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$	$n\hat{p}, n(1-\hat{p}) \geq 10$
Difference of two population means ($\mu_1 - \mu_2$)	$\bar{x}_1 - \bar{x}_2$	$\pm z^* \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}$	Both normal distributions or $n_1, n_2 \geq 30$; σ_1, σ_2 known
Difference of two population means $\mu_1 - \mu_2$	$\bar{x}_1 - \bar{x}_2$	$\pm t_{n_1+n_2-2}^* \sqrt{\frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1+n_2-2}}$	$n_1, n_2 < 30$; and/or $\sigma_1 = \sigma_2$ unknown
Difference of two proportions ($p_1 - p_2$)	$\hat{p}_1 - \hat{p}_2$	$\pm z^* \sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}$	$n\hat{p}, n(1-\hat{p}) \geq 10$ for each group

Sample Size Variable Definitions

Don't be scared, it's not that bad



POPULATION

The total number of people in the group you are trying to study

The number of users of your product

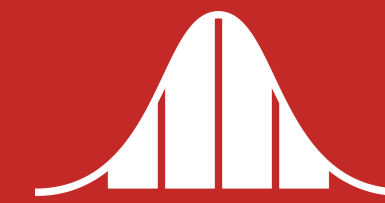
The number of women in the US between the ages of 25 - 34 with college degrees



CONFIDENCE LEVEL (CL)

The probability your sample accurately reflects the population you are studying.

95% is the industry standard

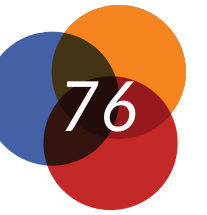


MARGIN OF ERROR (ME)

The range, as a percentage, that your population's responses will deviate from the answers of the sample.

5% is the industry standard

How many respondents do you need?

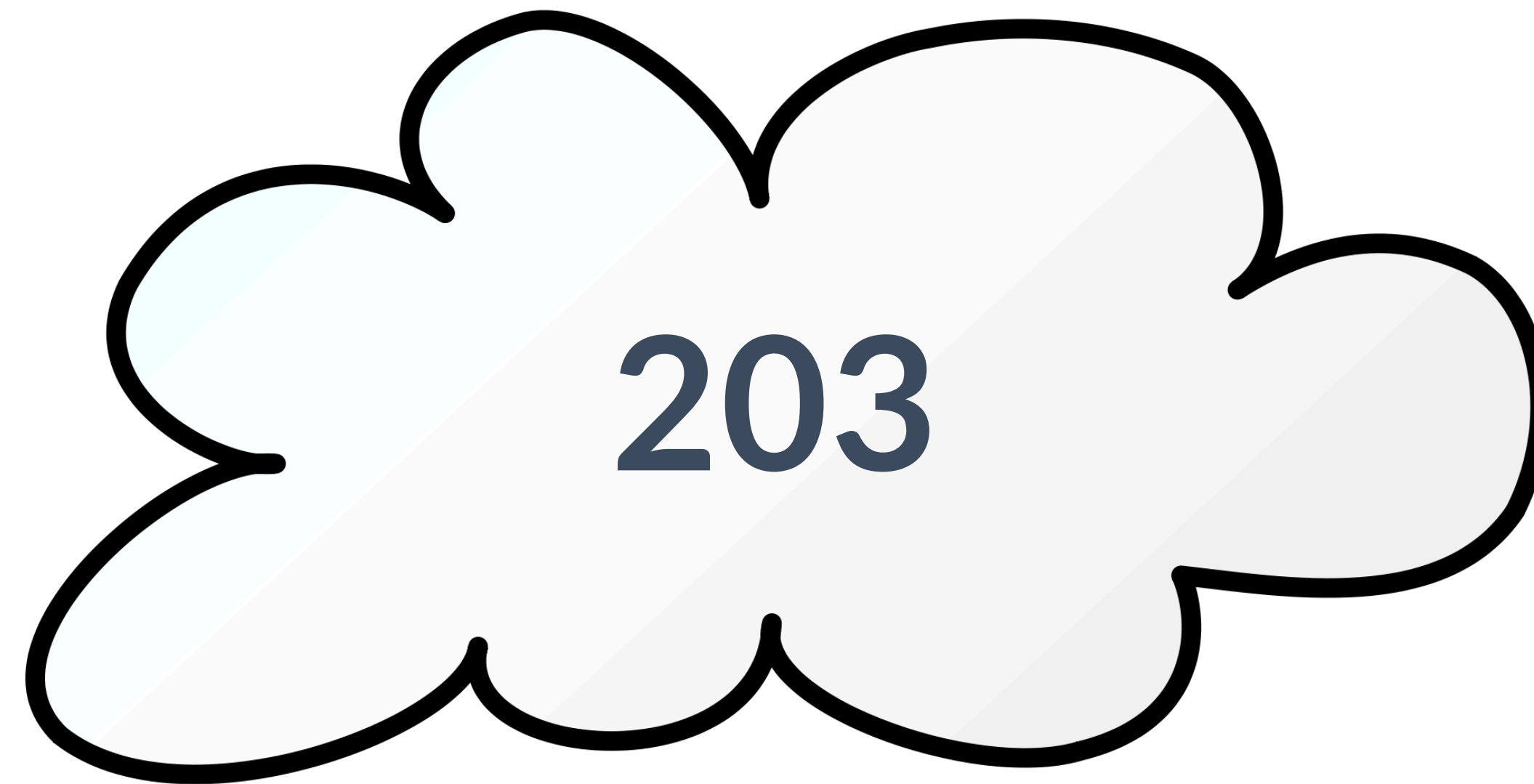


My user base is 425. How many survey responses do I need for a 95% confidence level and a 5% margin of error?

How many respondents do you need?



My user base is 425. How many survey responses do I need for a 95% confidence level and a 5% margin of error?



How many respondents do you need?



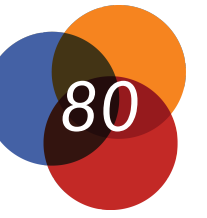
My user base is 500,000. How many survey responses do I need for a 95% confidence level and a 5% margin of error?

How many respondents do you need?

My user base is 500,000. How many survey responses do I need for a 95% confidence level and a 5% margin of error?

384

How many respondents do you need?



My population size is about 5,000,000. How many survey responses do I need for a 95% confidence level and a 5% margin of error?

How many respondents do you need?

My population size is about 5,000,000. How many survey responses do I need for a 95% confidence level and a 5% margin of error?

385

A person is seen from behind, standing in a field of tall, golden-brown grass. They are wearing a dark, short-sleeved shirt and dark pants. Their hands are raised near their head, with fingers spread. The background is a clear, pale blue sky. Overlaid on the image is the text "The magic sample size is" in a large, white, sans-serif font, followed by the number "400" in a very large, white, sans-serif font, and a horizontal white line underneath it.

The magic sample size is

400

The Invitation

Invitation Tips



PERSONALIZATION

Auto-populate with names and titles.



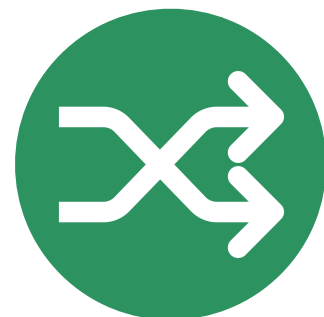
BREVITY

Keep it short and to the point.



CHANGE THE MEDIUM

Try snail mail, email, text messages...



CHANGE THE MESSAGE

If the first message isn't getting enough responses try another.



BE CLEAR

Provide step-by-step instructions.



BE TRANSPARENT

Tell them how the information they give will be used.

Point of contact

Who ya gonna call?

Monitor Your Progress





Analyzing the Data

Have a data analysis plan

What are your objectives for the data?

1

What variables do you want to use in your cross tabs?

2

Additional data analysis?
Conjoint? Regression? Text analytics?

3

Will you need special software to run the analysis?

4



Clean Your Data



REMOVE

- Extreme outliers
- Respondents who didn't answer all of the questions
- Respondents who used red herring answers
- Respondents who straight-lined



ASSESS

Do you still have the sample size you need? Yes? Go on to the analysis.

No? Only remove the worst 20% of the iffy responses or get more respondents.

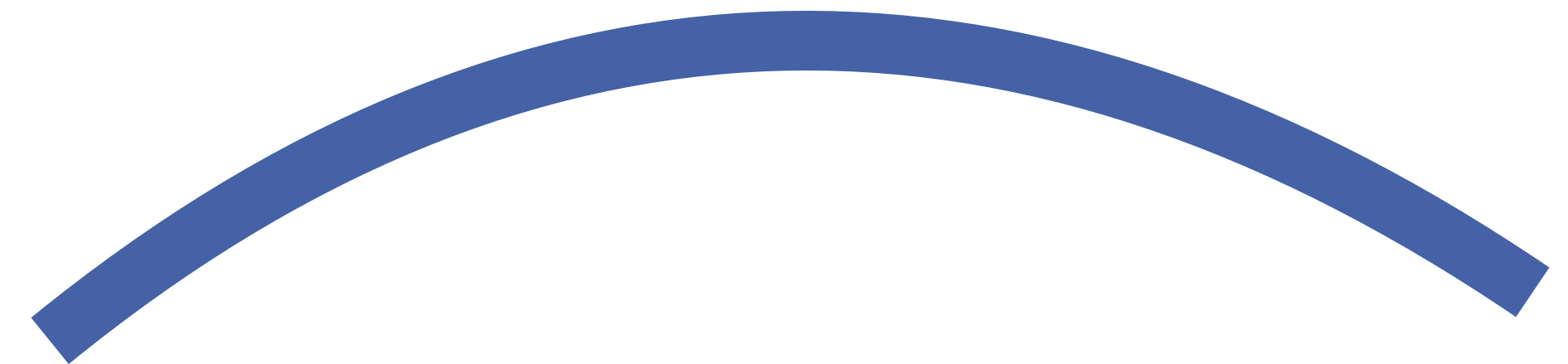
What does standard deviation mean?

Low Number



Homogeneous Data

High Number



Heterogeneous Data

Top 2 Boxes/Percent Positive

Analyzing scale data

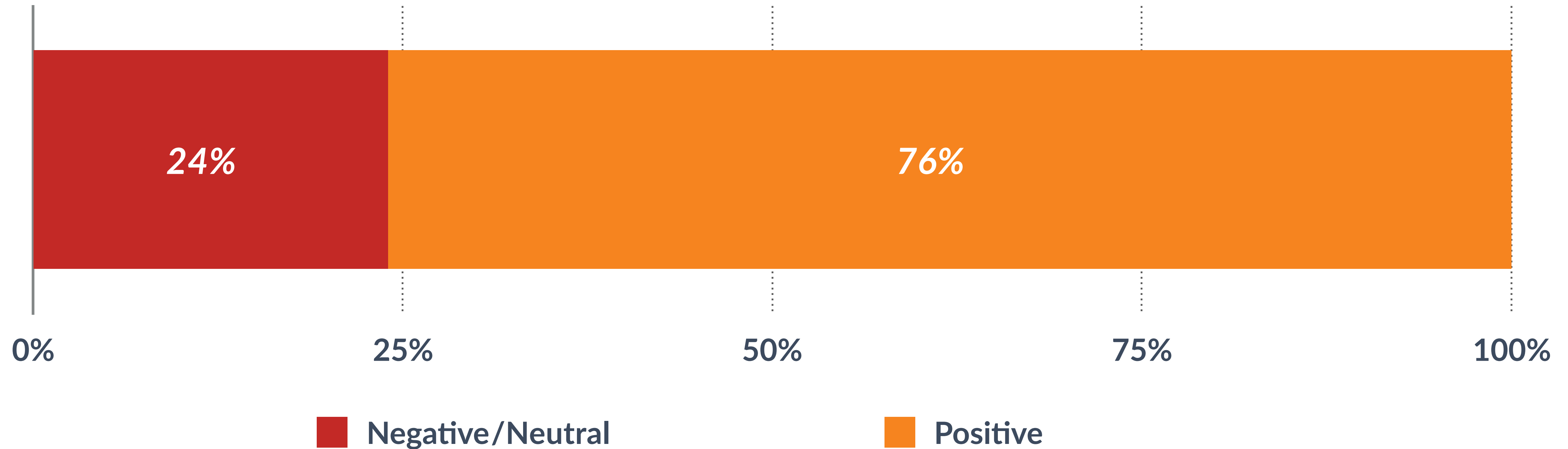
- When analyzing scale data calculate the percentage of respondents that chose the top 2 boxes
 - 5 point scale = top 2 boxes
 - 7 point scale = top 3 boxes

	It's really bad	It's kind of bad	Neutral	It's pretty good	I'm having a great time
Responses	1	24	19	59	78
% of Total	0%	13%	11%	33%	43%
Top 2 Boxes				76%	

Top 2 Boxes/Percent Positive

Graphing scale data

How is the conference going so far?



Key Takeaways



Key Takeaways

Yes, take a photo of this slide

- | Surveys are a UX problem you can solve.
- | Keep it short. 10 minutes or less.
- | Make them mobile first. Vertical. Concise. Abandon grids. Limit open ends.
- | Make all scales balanced Likert scales. 5s or 7s. Analyze using Top 2 (or 3) boxes.
- | Have a plan for the data before you write the survey.
- | Incentivize. Incentivize. Incentivize.
- | Use a sample size calculator, but 400 is the magic number.
- | Test your survey and rehearse deployment.
- | Clean your data before analysis. What are you doing to ensure data quality?



But Wait, There's More!

Further Reading



Internet, Mail, and Mixed-Mode Surveys - The Tailored Design Method

Don A. Dillman, Jolene D.
Smyth, and Leah Melani
Christian



Questionnaire Design

Ian Brace



People Are Not Robots

Annie Pettit, PhD

Online Sources



NewMR

Hashtag #NewMR
Twitter @NewMR_News
Youtube "NewMR Videos"



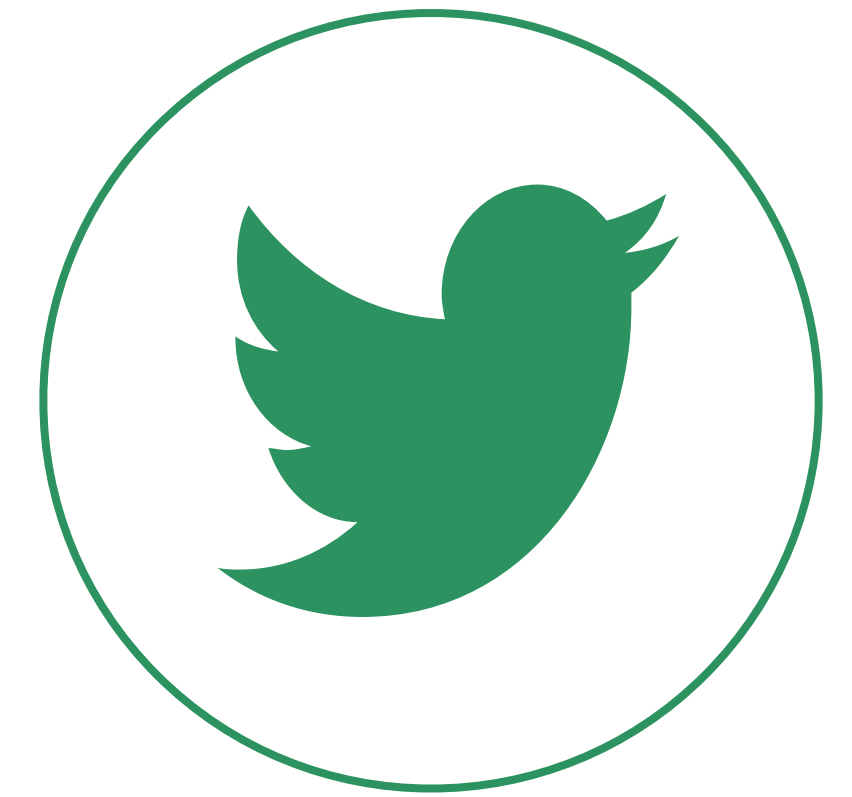
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Twitter @LoveStats



Jeffrey Henning

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Ray Poynter

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