Surveys that work

Using questionnaires to gather useful data

Caroline Jarrett

Brisbane 2010

Agenda

9:00	Introduction and getting started with surveys
9:15	Comparing processes
10:00	What the survey methodology experts say about process
10:45	Break
11:30	Working on questions
12:45	Lunch
1:30	Working through the process
2:30	Survey error and how to avoid it
3:00	Choosing a survey tool
3:15	Break
4:00	Test, test, test
5:00	Close

Introduction

Who we are

An exercise: three ways with a question

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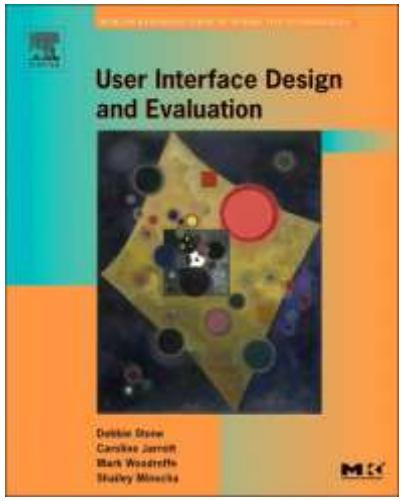
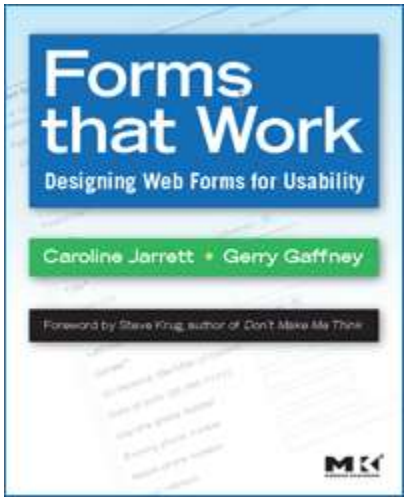
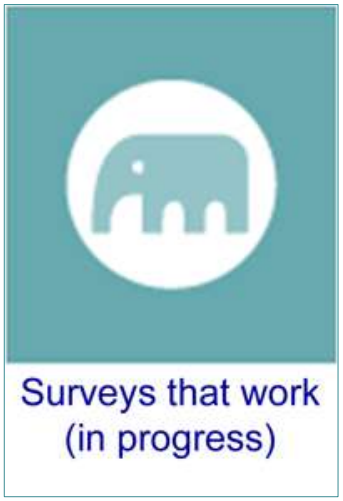






The definitions we're using for today

- A survey:
  - The process of specifying, gathering, processing, and reporting data
- A questionnaire:
  - The list of questions and allowed answers
- The respondent:
  - The person who provides the answers
- An interview:
  - An interviewer talks with a respondent
  - Could be face-to-face, on the phone, by email

The survey methodologist's terms are different from everyday usage

- A survey:
  - The process of specifying, gathering, processing, and reporting data
  - Some authorities use the term 'questionnaire' for the survey
- The instrument:
  - The list of questions and allowed answers
  - Some authorities use the term 'questionnaire' for the instrument
  - Also sometimes called a 'script' or a 'question protocol'
- The administration method:
  - 'Self-administered': the respondent works directly with the instrument
  - 'Interviewed': there is an interviewer (face-to-face or by telephone)

For today's purposes, we'll use interview or questionnaire like this

- Interview
  - Talk to the user
  - Interviewer captures the answers
  - Small samples
  - Interviewer has discretion to vary the details of the interview
- Questionnaire
  - Do not talk to the user
  - Receive written answers from user
  - Large samples
  - Wording and (some) answers are fixed

Write down your answers to this questionnaire

1. How many user surveys have you run?

NONE 1 to 5 6 to 10 more than 10

2. What is your top tip for a better user survey, based on experience of writing or answering?

_____

_____

Now try it as an interview

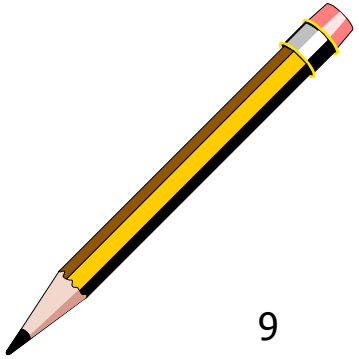
1. How many user surveys have you run?

NONE 1 to 5 6 to 10 more than 10

2. What is your top tip for a better user survey, based on experience of writing or answering?

_____

_____



Now tell each other a story about your experience relevant to these questions

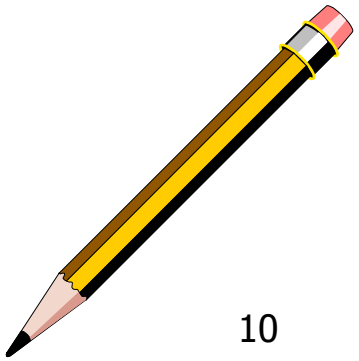
1. How many user surveys have you run?

NONE 1 to 5 6 to 10 more than 10

2. What is your top tip for a better user survey, based on experience of writing or answering?

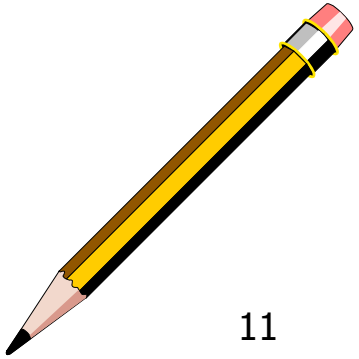
_____

_____



Now let’s share data and stories

- What numbers have we collected?
- What open answers?
- What stories?



Outline

Comparing processes

What the experts say about process

Working on questions

Working through the process

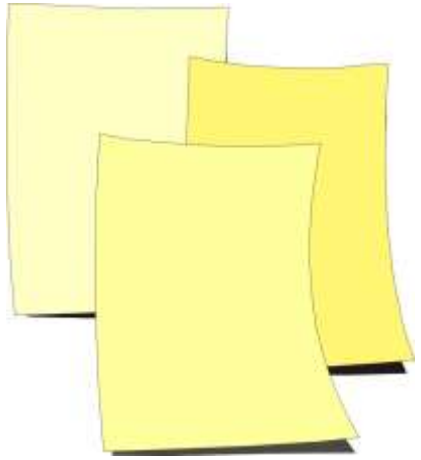
Survey error and how to avoid it

Choosing a survey tool

Test, test, test

Let’s compare processes

- Think about the process of developing a survey
  - If you currently run surveys, think about a typical recent one
  - If you don’t, think about what a survey development process might be
- Write each step in your process on a sticky note
- Number each step in order
- Put your initials or name on each step
- Then we’ll do some comparing



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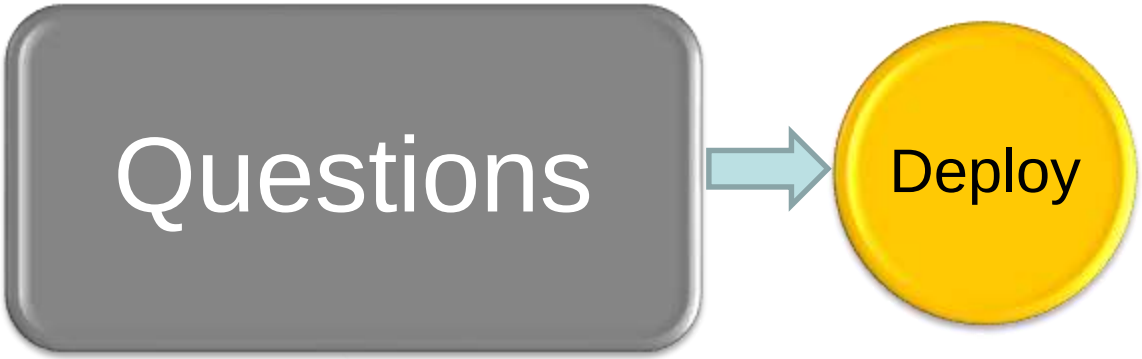
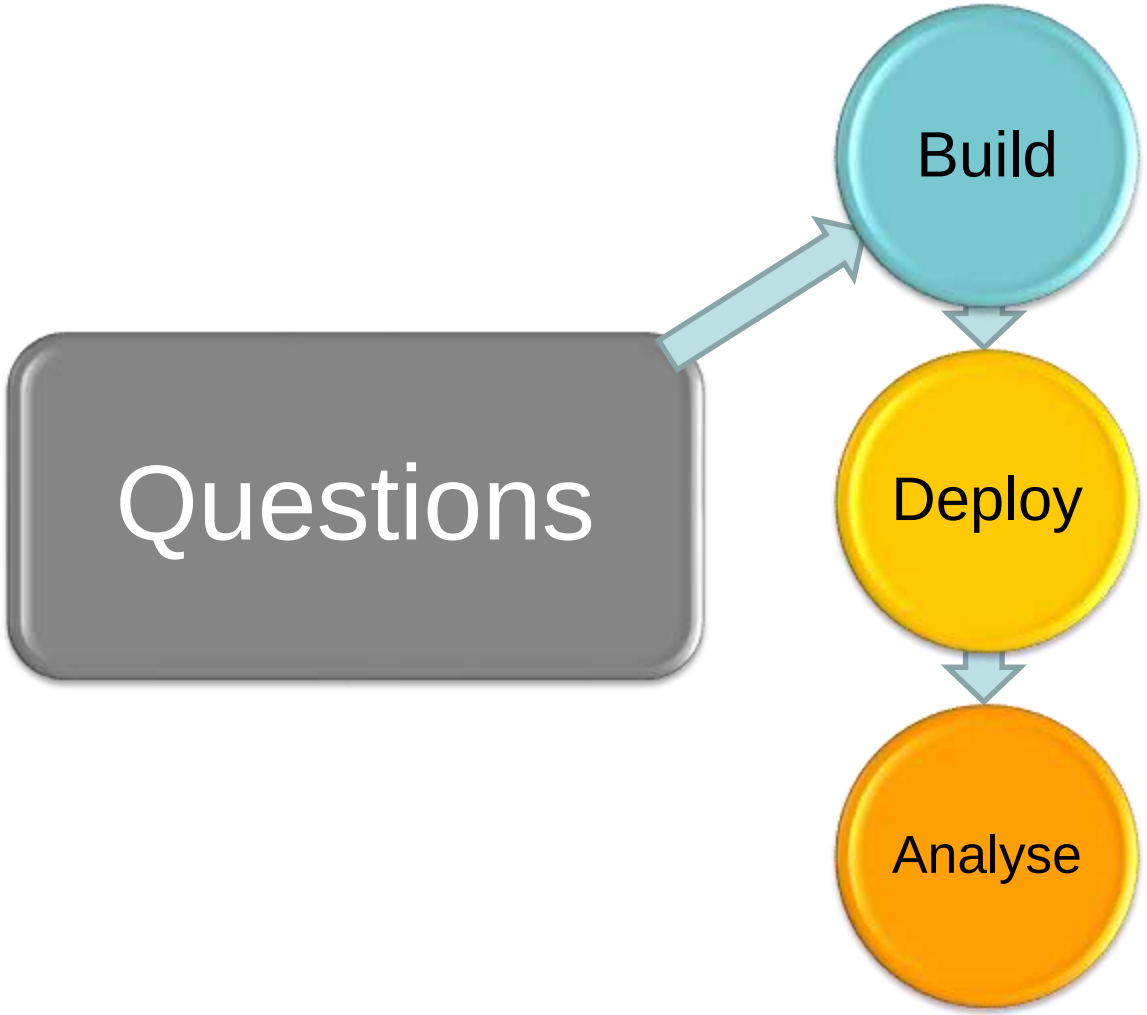
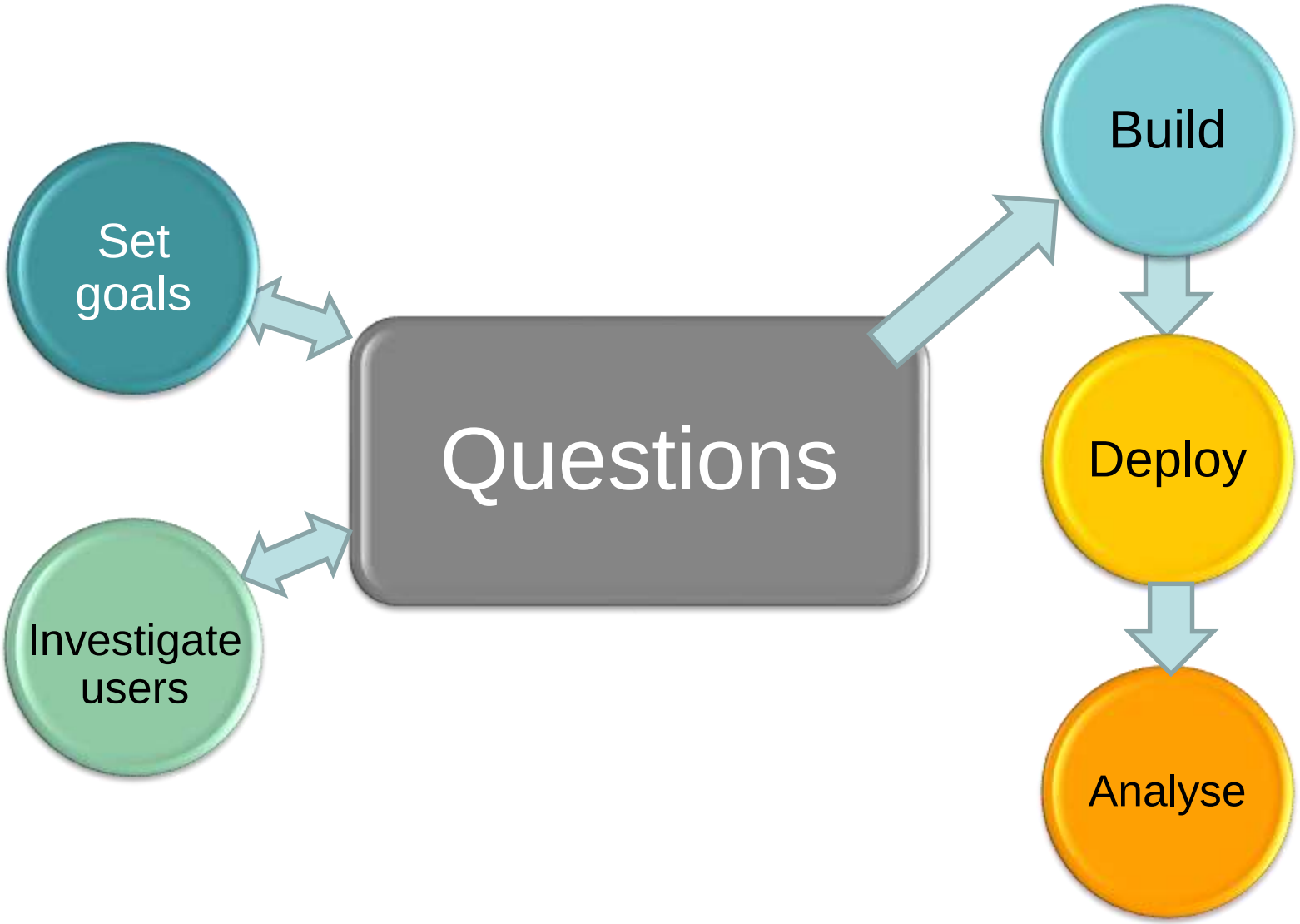
One type of survey request



A more sophisticated version



The iterative ideal



A basic process

Goals

- Establish your goals for the survey

Build

- Write questions
- Build the questionnaire

Deploy

- Run the survey from approach to follow-up

Analyse

- Analyse the results

A much better basic process

Goals	Users	Build	Deploy	Analyse
• Establish your goals for the survey	• Find out what your users want to tell you	• Write questions • Build the questionnaire	• Run the survey from approach to follow-up	• Analyse the results

Note: later in the day, we discussed the process and decided that
'find out what your users want to tell you' wasn't quite the right description.
We thought about 'understand your users' but decided that wasn't
quite right either.
Crucial points:
-Review what you know about users.
-If it's not much, go and find out about them, qualitatively.

A complete process

Goals	Users	Build	Deploy	Analyse
• Establish your goals for the survey	• Find out what your users want to tell you	• Write questions • Build the questionnaire	• Run the survey from approach to follow-up	• Analyse the results
• Decide what you will do based on the results	• Design your sampling strategy	• Usability test • Pilot the survey	• Monitor your response rate	• Cross-check the results

A typical expert view:
The topics discussed by Dillman et al (2008)

Goals	Users	Build	Deploy	Analyse
	• Find out what your users want to tell you	• Write questions • Build the questionnaire		
	• Design your sampling strategy	• Usability test • Pilot the survey	• Monitor your response rate	

Dillman, D. A., Smyth, J.D., Christian, L. M. (2008)
Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method

Our example: students and social media

- “Our students use social media: why aren’t we there?”
- We need some quantitative data

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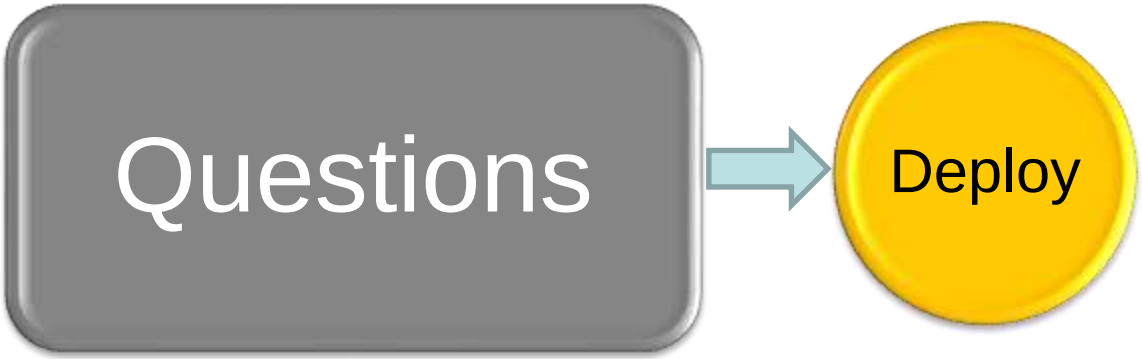


Some details of question design

Some basics on questions

What is a Likert scale?

Number of points in a rating scale

Write good questions

- Mix question types: choice and open
- Use appropriate, unambiguous language
- Avoid leading questions
- Present one question at a time
- Keep questions concise
- Keep positive; negatives are harder to understand

Our example: students and social media

- “Our students use social media: why aren’t we there?”
- We need some quantitative data

Questions are slippery and do unexpected things

- Don Dillman

  "Similar to driving in freeway traffic while drinking a cup of hot coffee and answering an emergency call on a cell phone … Many things are competing for attention and failure to heed any of them can spell disaster"

Dillman, D.A. (2000) "Internet, Mail and Mixed Mode Surveys: The Tailored Design Method"

Meanings change in context

- “Frequent”
  - Heart attacks
  - Headaches
- “Within the last week”
  - Working week
  - Week and weekend
  - Seven days up to today

Meanings change in context

- According to the question
  - How many children in your family?
  - Is there any history of cancer in your family?
- According to the context of the question
  - What is your income?
    - Tax authority
    - Salary survey
- According to the answer categories
  - Do you own a car? Yes No
  - Do you own a car? Own Lease Both Neither

Is the user's meaning the same as yours?

- Are you a director?
  - User meaning: job title such as director of a play
  - Tax meaning: responsible for financial decisions made in the business, job title doesn't matter
- "It is easy to get data files in and out of this system:

  Agree Undecided Disagree"
  - User answer: undecided
  - User doesn't understand the question

An example of context effects: How happy is your marriage?

- First group:
  - How would you describe your marriage? 63% ‘very happy’
  - How would you say things are these days? 38% ‘very happy’
- Second group:
  - How would you say things are these days? 52% ‘very happy’
  - How would you describe your marriage? 70% ‘very happy’
- Putting the marriage question second:
  - Increases reported general happiness by 14%
  - Increases reported marital happiness by 7%

Schuman and Presser, 1996

An example of scale effects: How many hours a day do you study?

Low scale

- ½ hour or less
- From ½ to 1 hour
- From 1 to 1 ½ hours
- From 2 to 2 ½ hours
- More than 2 ½ hours

High scale

- 2 ½ hours or less
- From 2 ½ to 3 hours
- From 3 ½ to 4 hours
- From 4 to 4 ½ hours
- More than 4 ½ hours

Scale influences the response

	Low scale	High scale
Up to 2 ½ hours	70%	29%
More than 2 ½ hours	30%	71%

Note: we discussed 'boxing'
i.e. adding together the scores from the 'top two boxes' and 'bottom two boxes'

A typical definition of Likert scale includes named response points

- “A typical question using a Likert Scale might pose a statement and ask the respondent whether they Strongly Agree - Agree - Undecided - Disagree or Strongly Disagree.”

A different type of definition collects several responses and combines them

- “A typical question using a Likert Scale might pose a statement and ask the respondent whether they Strongly Agree - Agree - Undecided - Disagree or Strongly Disagree.”
  - http://www.icbl.hw.ac.uk/ltdi/cookbook/info_likert_scale/
- “Rensis Likert (1932) developed a direct measure of attitudes called the Likert Scale. A Likert Scale adds up responses to statements representative of a particular attitude”.
  - http://www.gerardkeegan.co.uk/glossary/gloss_l.htm

Likert had several different types of question in his scales

13. How much military training should we have?

(a) We need universal compulsory military training. (1)
(b) We need Citizens Military Training Camps and Reserve Officers Training Corps, but not universal military training. (2)
(c) We need some facilities for training reserve officers but not as much as at present. (3)
(d) We need only such military training as is required to maintain our regular army. (4)
(e) All military training should be abolished. (5)

17. The United States, whether a member or not, should co-operate fully in the humanitarian and economic programs of the League of Nations.

Strongly Approve (5)	Approve (4)	Undecided (3)	Disapprove (2)	Strongly Disapprove (1)

Likert was trying to pin down slippery attitudes

- A Likert scale of statements about ‘helpfulness’
  - The instructions and prompts are helpful.
  - I find that the help information given by this system is not very useful.
  - The way that system information is presented is clear and understandable.
  - There is never enough information on the screen when it's needed.
  - I can understand and act on the information provided by this system.
  - The system has helped me overcome any problems I have had in using it.
  - The organisation of the menus seems quite logical.
  - Error prevention messages are not adequate.
  - The quality of the help information varies across the system.
  - It is easy to see at a glance what the options are at each stage.
- The statements are analysed statistically as a group.

From IR-SUMI: the Inland Revenue variation on SUMI

Make the ‘helpfulness’ questions more useful?

- If you had to choose just one ‘helpfulness’ question, which would it be?
- Runner up?
- What action would you take based on the answer?

Grids combine questions using Likert-like scales

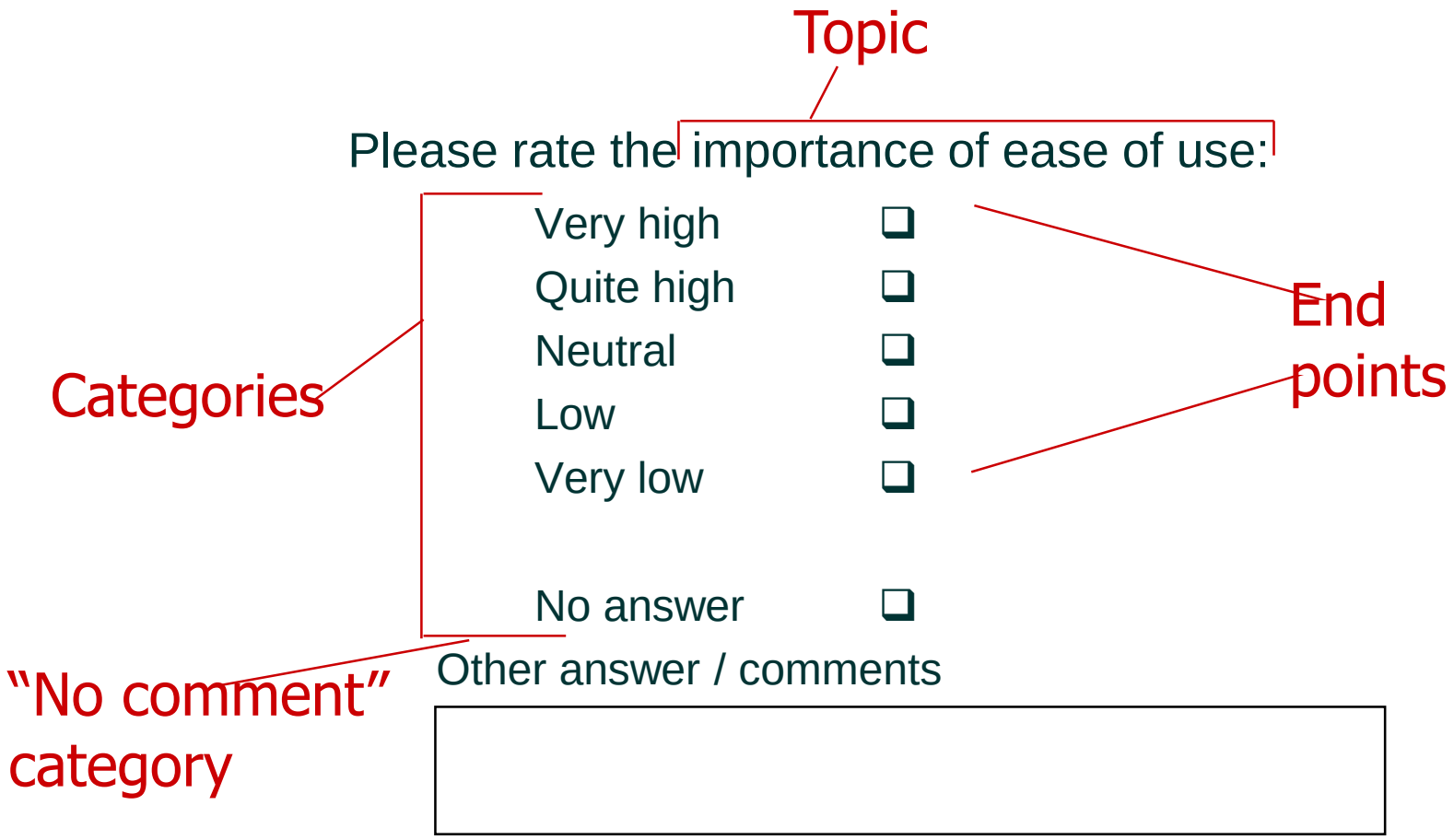
As a result of visiting The Dancing On Ice site, how likely are you to do the following.

	Extremely likely	Likely	Neither likely nor unlikely	Unlikely	Extremely unlikely
Look for more coverage of Dancing On Ice online	○	○	○	○	○
Recommend the site to someone else	○	○	○	○	○
Visit the site more often than you currently do	○	○	○	○	○
Watch more of Dancing On Ice on TV	○	○	○	○	○
Explore more of what itv.com has to offer	○	○	○	○	○
Visit the site again	○	○	○	○	○
Start following Dancing On Ice on Facebook or Twitter	○	○	○	○	○

55%

Next

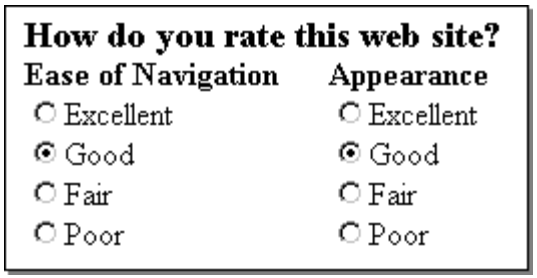
Anatomy of a response range



A good response range has four key attributes

1. Easy to associate response with category
2. Balanced end-points
3. Allows user to over-answer or not answer
   - “no comment” category
   - space for comments
4. Thoughtful choice of default

All of these examples have unbalanced ranges



The top example does not allow for ‘other’; the other example isn’t consistent

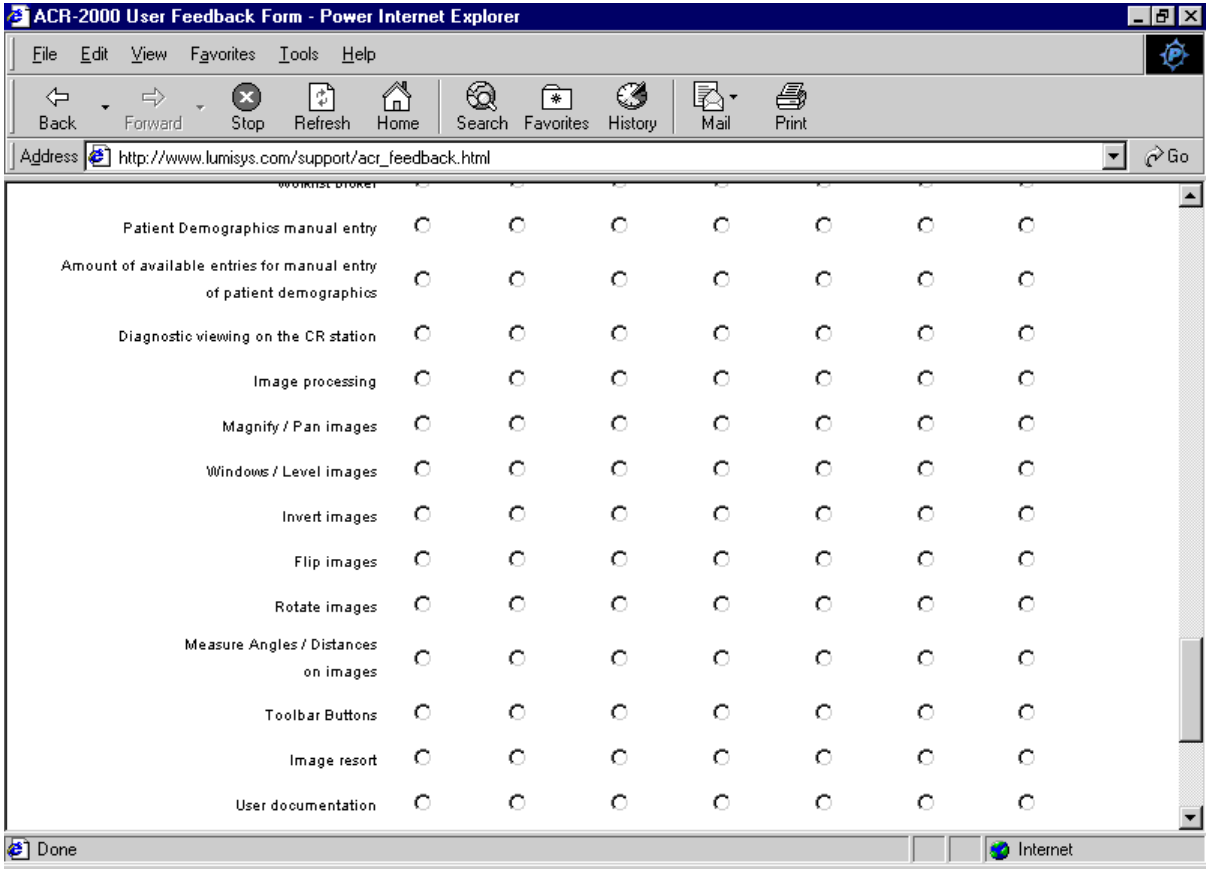
8. How long do you usually spend on a visit to this site?

- ○ Less than 10 minutes
- ○ 10 to 30 minutes
- ○ 30 minutes to an hour
- ○ More than an hour

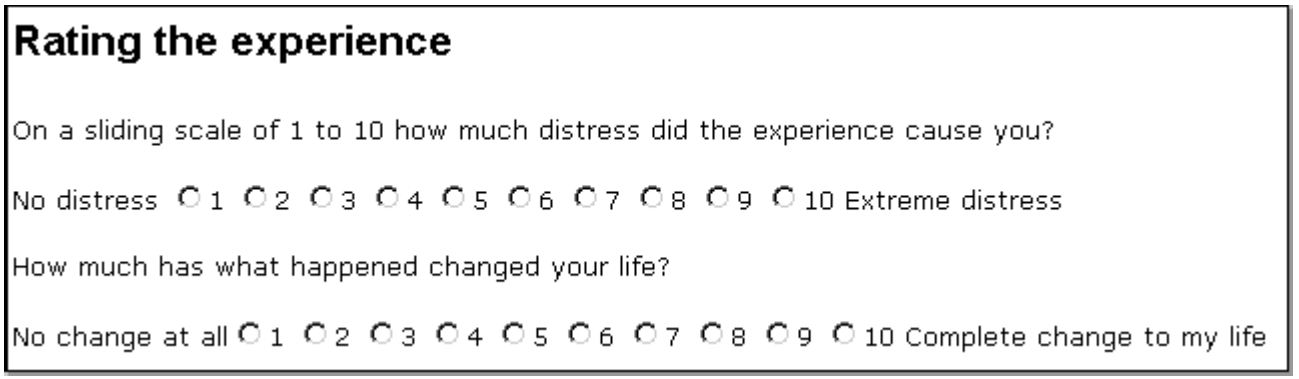
How often do you...	Once a study	Once a shift	Daily	Weekly	Monthly	Other (Specify)
Archive images?	○	○	○	○	○	
Run self test manually?	○	○	○	○	○	
Restart the workstation?	○	○	○	○	○	
Have the scanner calibrated?	○	○	○	○	○	

How do you rate the following features?	Not Used	Very Unsatisifed	Moderately Unsatisifed	Somewhat Unsatisifed	Somewhat Satisfied	Moderately Satisfied	Very Satisfied
Installation, training & support?	○	○	○	○	○	○	○
CR hardware?	○	○	○	○	○	○	○
Plate Eraser?	○	○	○	○	○	○	○
Software in general?	○	○	○	○	○	○	○

Make sure that it is easy to associate the response and the category

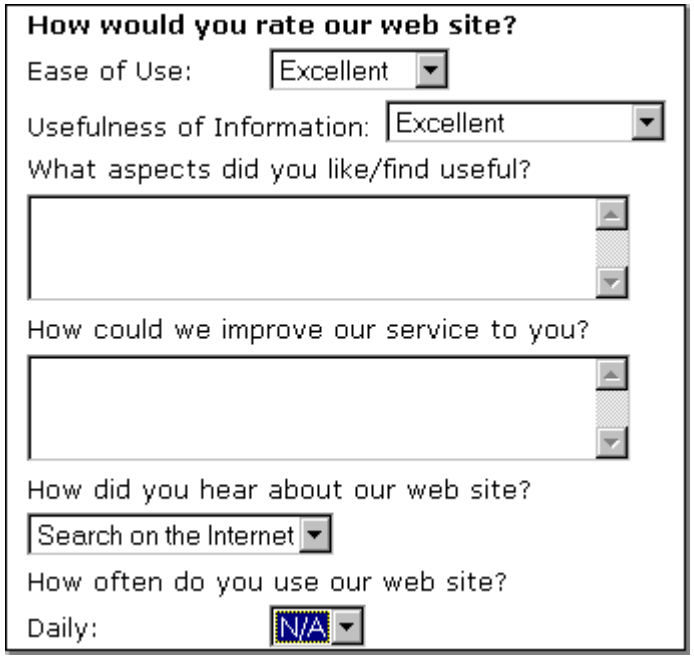


This psychological scale should allow the user to ‘over answer’ (but it doesn’t).



Equally important:
allow user to decline to answer

Be careful about offering a default



- Rule of thumb:
  - On forms, consider the most common choice as default
  - On questionnaires, offer neutral or "-enter choice-" as default

In testing, participants gave 6 reasons for choosing the midpoint of a three-point scale

- Example: series of topic statements
  - "This system responds too slowly to inputs."
- Three category choices
  - User chooses from "Agree Undecided Disagree"
- Reasons for choosing "Undecided"
  1. Neither agree nor disagree
  2. Sometimes agree and sometimes disagree
  3. Don't know
  4. Not interested
  5. Don't understand the topic statement
  6. Not up to me to comment on this point

Adding extra steps in the range shows no improvement for usability (but may statistically)

Steps	Effect
3	Uncomfortable. Users like to ‘shade’ their answers
4	Uncomfortable. No mid-point
5	Best choice
6	Creates ambiguous centre
7	Users move to ‘top 5’ or ‘bottom 5’
Over 7	Same problems as for 6 and 7, only worse. End and middle effects

Exceptions to the 5 point rule

- Offer more than 5 points if:
  - You are asking about complex attitudes and users really, truly want to express subtle differences
  - When you test your questionnaire, your users insist that they want more than 5
  - You're heading into a political war with someone who is convinced that more points are better
- Don't offer any points for numeric answers (such as hours of watching television). Ask for a value instead.

Summary: a good response range

- Categories
  - All categories meaningful for topic
  - Try to be as comprehensive as you can
  - Allow for exceptions: “other” category
- Easy to associate response with category
- Balanced end-points
- Allows user to over-answer or not answer
  - “no comment” category
  - space for comments
- Thoughtful choice of default

A survey is more than questions

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Goals	Users	Build	Deploy	Analyse
• Establish your goals for the survey	• Find out what your users want to tell you	• Write questions • Build the questionnaire	• Run the survey from approach to follow-up	• Analyse the results

Goals | Users | Build | Deploy | Analyse

- Establish your goals for the survey

Goals

Set goals for the survey

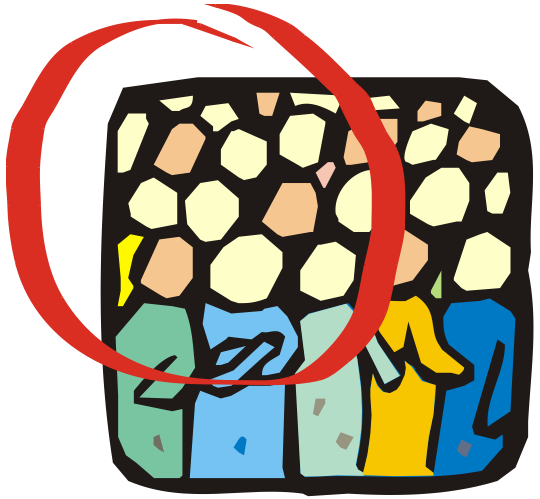
- Who wants the results of the survey?
- When do you need the results?
- Why do a survey rather than something else?

Our example: students and social media

- “Our students use social media: why aren’t we there?”
- We need some quantitative data

Goals | Users | Build | Deploy | Analyse

- Find out what your users want to tell you



Users

Decide on the target group

- Who are they?
- Do they all own the same information?
- Do they want to tell you the information?
- How will you find them?

Users

Interview some respondents

- What you do:
  - Check that you have the right group
  - Establish correct language
  - Find out what they want to tell you
- Why you do it:
  - Surveys that are interesting get a better response rate

Users

Response relies on effort, reward, and trust

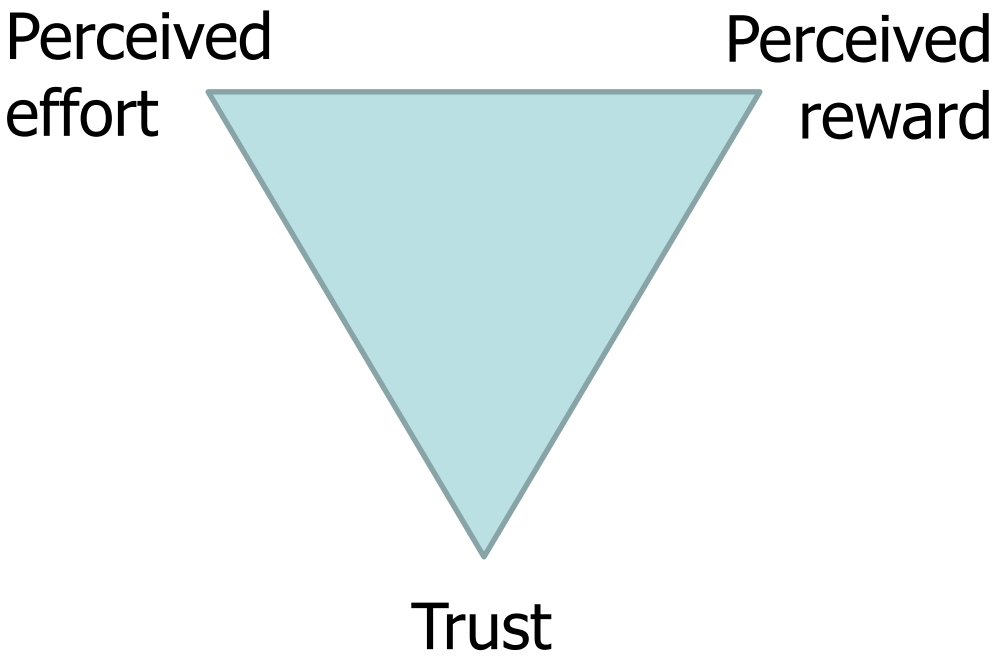


Diagram from Jarrett, C, and Gaffney, G (2008) "Forms that work: Designing web forms for usability" inspired by Dillman, D.A. (2000) "Internet, Mail and Mixed Mode Surveys: The Tailored Design Method"

Our example: students and social media

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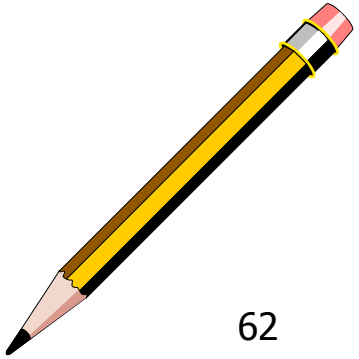

Goals | Users | Build | Deploy | Analyse

- Write questions
- Build the questionnaire

Build

Organize the questions to grab the respondent's attention

- Keep to one topic at a time
- Start with questions that are interesting
- Move from less invasive to more invasive
- Minimize requests for personal information

Sorting out the topics: group these ones

1. What was your total family income in 2009?
2. Do you like to play golf?
3. What is your opinion on global warming?
4. Are you married?
5. Which political party does the best job of promoting economic growth?
6. How many times have you gone bowling in the last year?
7. What is your political party preference?
8. Do you favour or oppose higher tax on fuel as a measure to reduce environmental pollution?
9. What is your occupation?
10. Please describe your favourite recreational activity.
11. How old are you?

Adapted from Dillman, D.A., Smyth, J.D. and Christian, L.M. (2009) Internet, Mail and Mixed Mode Surveys: The Tailored Design Method

Build

Write a preamble that creates a social exchange

- Reduce perceived effort:
  - Provide sufficient and clear instructions
  - Say how long it will take?
- Increase perceived rewards:
  - Can they receive results if interested?
  - Can you offer a small, immediate incentive?
- Build trust
  - Tell respondents what the survey is for
  - Provide contact details including a direct phone number
  - Are responses anonymous or confidential?

Preamble: everything before the first question

Our example: students and social media

- “Our students use social media: why aren’t we there?”
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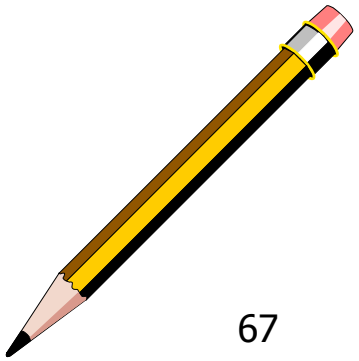


Goals | Users | Build | Deploy | Analyse

- Run the survey from approach to follow-up

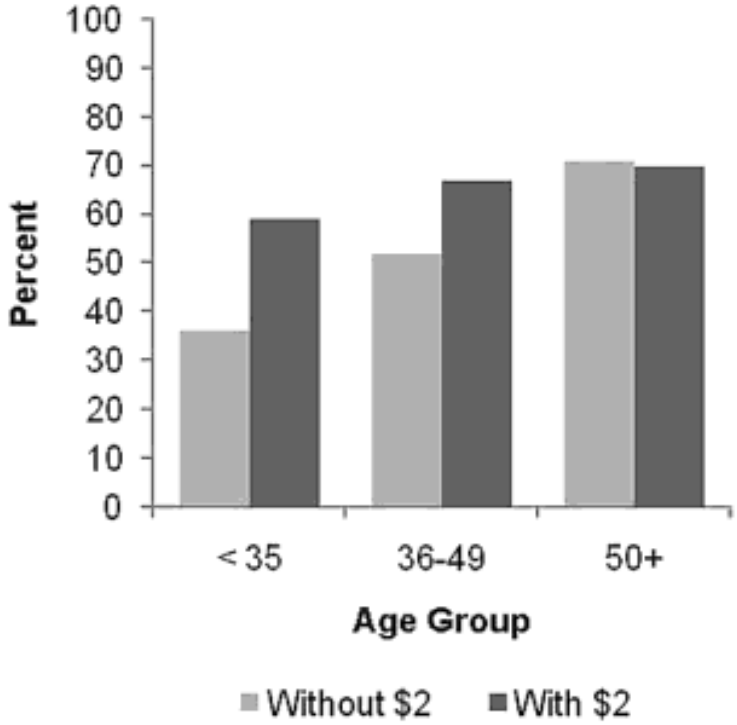
Deploy

Run the survey from approach to follow-up

- Send the pre-notice from the survey sponsor
- Send the survey with token incentive
- Send a reminder message (no further incentive)
- Send a second copy of the survey
- Thank participants

A token incentive works better than no incentive or a prize draw

Figure 7.3 Effects of a $2 incentive on the age composition of a completed sample of new driver's license holders in Washington State.



Source: The Influence of Different Techniques on Response Rates and Nonresponse Error in Mail Surveys, by K. J. Miller, 1996, Bellingham, WA: Western Washington University. Unpublished master's thesis.

Goals | Users | Build | Deploy | Analyse

- Create summaries and comparisons
- Present the results

Analyse

Compile responses

$	# answers
0	62
50	34
100	131
150	25
200	57
250	32
300	31
500	84
1000	44
2000	17
3000	8
5000	7

$250/class-up to 3 classes. $150 for tests-up to 2

depends upon my employers contribution

$250? initial, plus $50? each 'renewal'

42

$30 - unless my company agreed to pay it ;-)

don't know-I would want my emp'er to pay

$300 first time, $100 for renewal

Have no basis for comparison.

$300 for a 5-year certification

I can't say-depends entirely on the certification

A Wordle example: in favour of Facebook

Another: against Facebook

Wordle from the UPA survey on certification

Another Wordle from the UPA survey on certification

Analyse

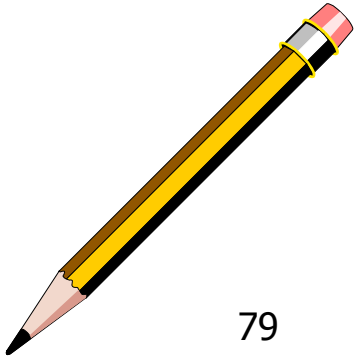
Publish results - gently

- Don’t surprise people with bad news
- Make sure publication is timely
- Keep reports short
- It’s OK to have some gaps in the results, “more work needed”

“I’ve finished the report for you”

Our example: students and social media

- “Our students use social media: why aren’t we there?”
- We need some quantitative data



Outline

Comparing processes

What the experts say about process

Working on questions

Working through the process

Survey error and how to avoid it

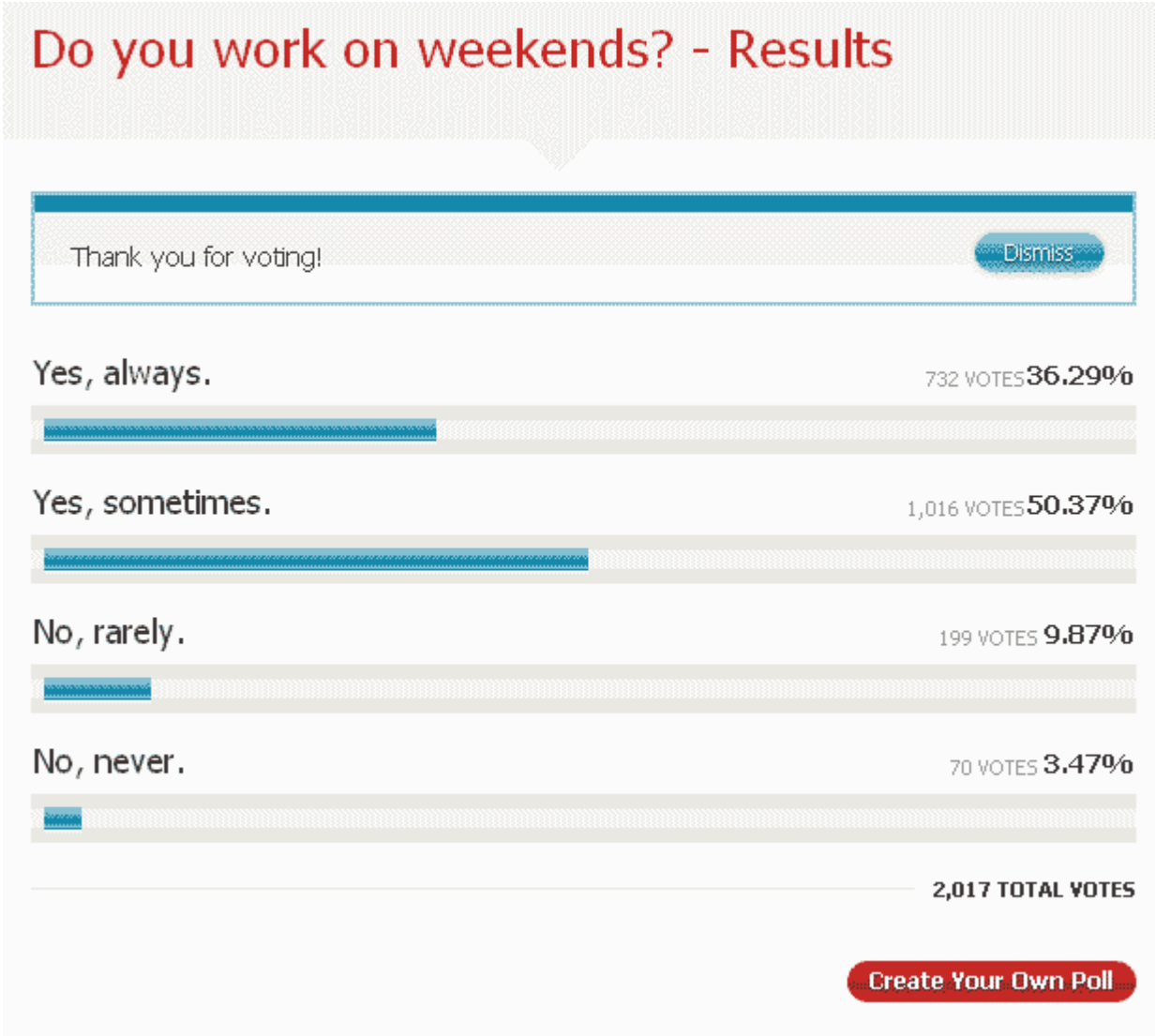
Choosing a survey tool

Test, test, test

A tweet with a survey in it

Sunday 5th September

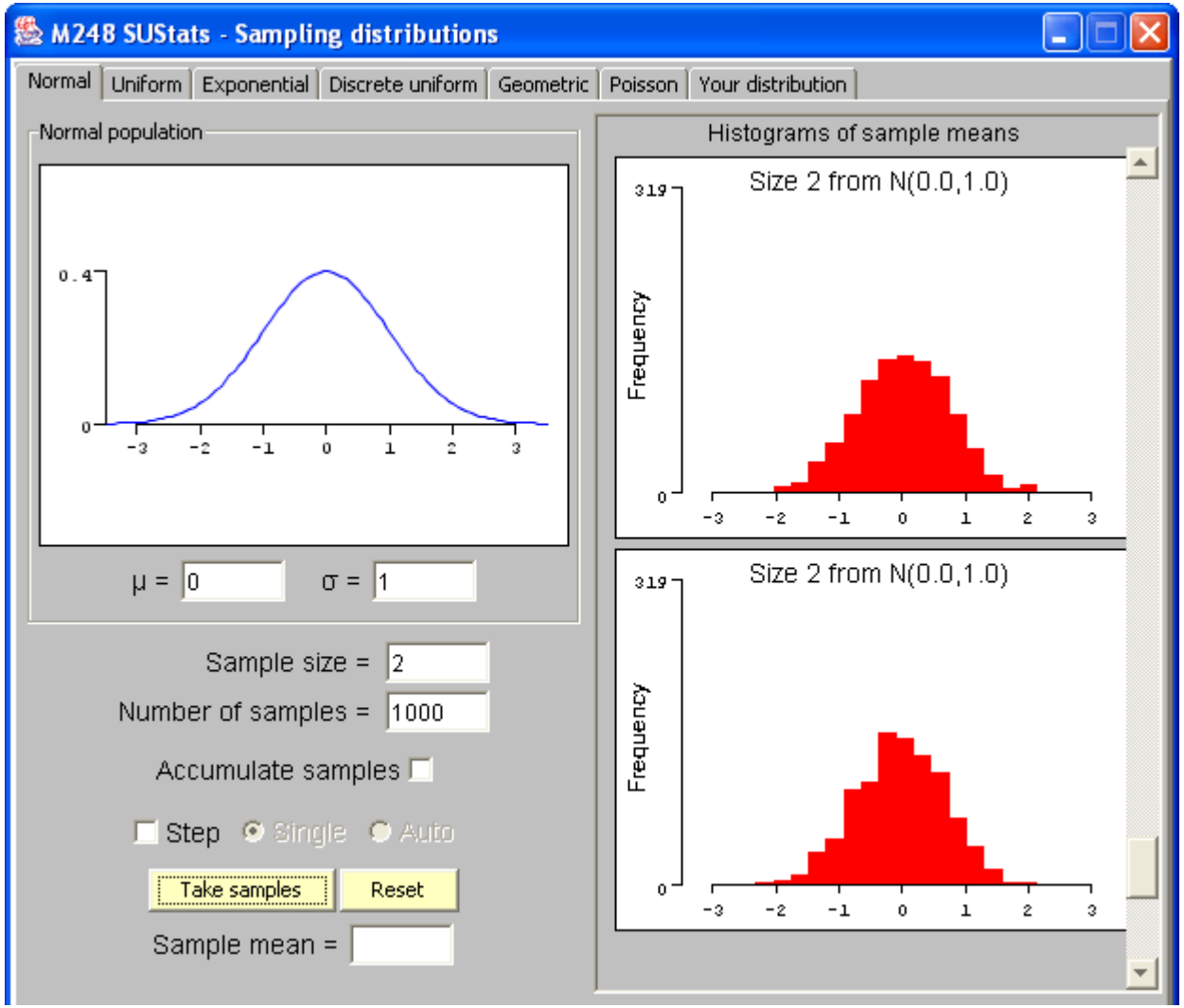
The results


Do you work on weekends? - Results
Thank you for voting!
Dismiss
Yes, always.
732 VOTES 36.29%
Yes, sometimes.
1,016 VOTES 50.37%
No, rarely.
199 VOTES 9.87%
No, never.
70 VOTES 3.47%
2,017 TOTAL VOTES
Create Your Own Poll

There are four types of survey error

- Sampling:
  - Some respondents get left out
- Non-response:
  - The people who do respond are different to the people who do not
- Coverage:
  - Some of the population is not included in the sampling frame
- Measurement:
  - Asking the wrong question

You can’t avoid sampling error



Avoid non-response error with a better response rate

- More respondents means fewer who do not respond:
  - Less follow-up
  - Less opportunity for them to share factors in common (but different to the respondents)
- The other theory:
  - A low response rate may be independent of any factor
  - About 1% of people just like answering questions
  - This propensity is not correlated with any other factor

http://www.usabilitynews.com/news/article2528.asp

Dillman recommends mixed-mode surveys to avoid coverage error

- Telephone surveys have coverage problems:
  - Unlisted numbers
  - ‘Do not call’ numbers
  - Cell phone-only households
- Mail surveys have coverage problems:
  - New delivery points
  - Shared delivery points
- Internet surveys have coverage problems:
  - People without internet access
  - No directory of email addresses
  - Spam filters

Adding steps to avoid coverage, sampling, and non-response error

Goals	Users	Build	Deploy	Analyse
• Establish your goals for the survey	• Find out what users want to tell you	• Write questions • Build the questionnaire	• Run the survey from approach to follow-up	• Analyse the results
	• Design your sampling strategy		• Monitor your response rate	• Cross-check the results

Avoid measurement error by being careful

- Investigate well to have clear goals
- Create well to have good questions
- Keep testing everything, all the time
- Make sure that you analyse the data from your pilot

Adding steps to avoid measurement error

Goals	Users	Build	Deploy	Analyse
• Establish your goals for the survey	• Find out what users want to tell you	• Write questions • Build the questionnaire	• Run the survey from approach to follow-up	• Analyse the results
• Decide what you will do based on the results	• Design your sampling strategy	• Usability test • Pilot the survey	• Monitor your response rate	• Cross-check the results

Challenging the theory

- How many steps are practical?
- How much time do you have for a survey?
- Which of those things do you really do?
- Which might you try?

A complete process

Goals	Users	Build	Deploy	Analyse
• Establish your goals for the survey	• Understand your users??	• Write questions • Build the questionnaire	• Run the survey from approach to follow-up	• Analyse the results
• Decide what you will do based on the results	• Design your sampling strategy	• Usability test • Pilot the survey	• Monitor your response rate	• Cross-check the results

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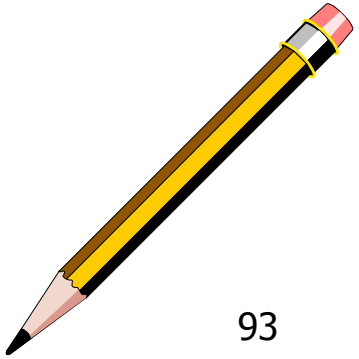
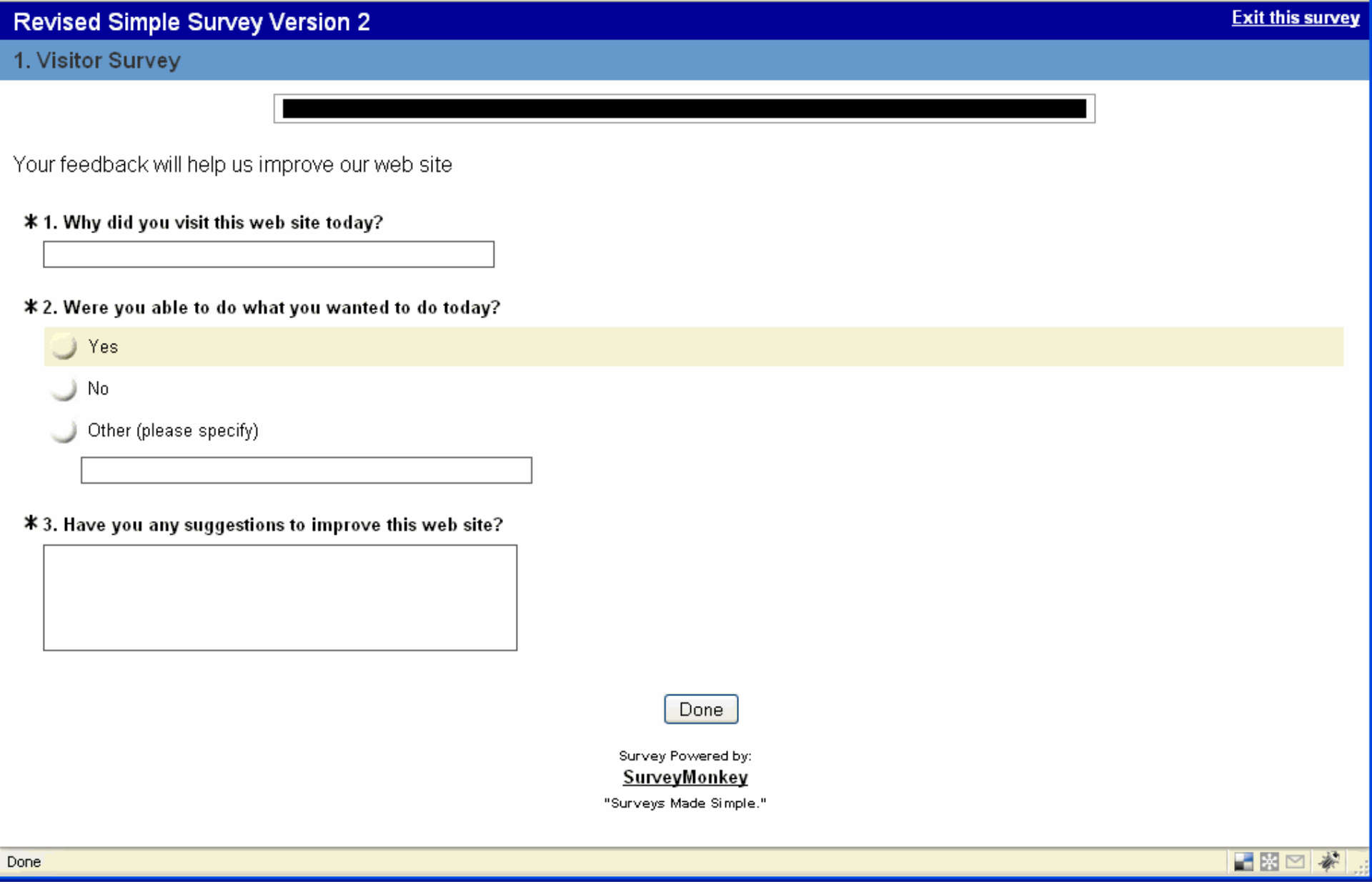
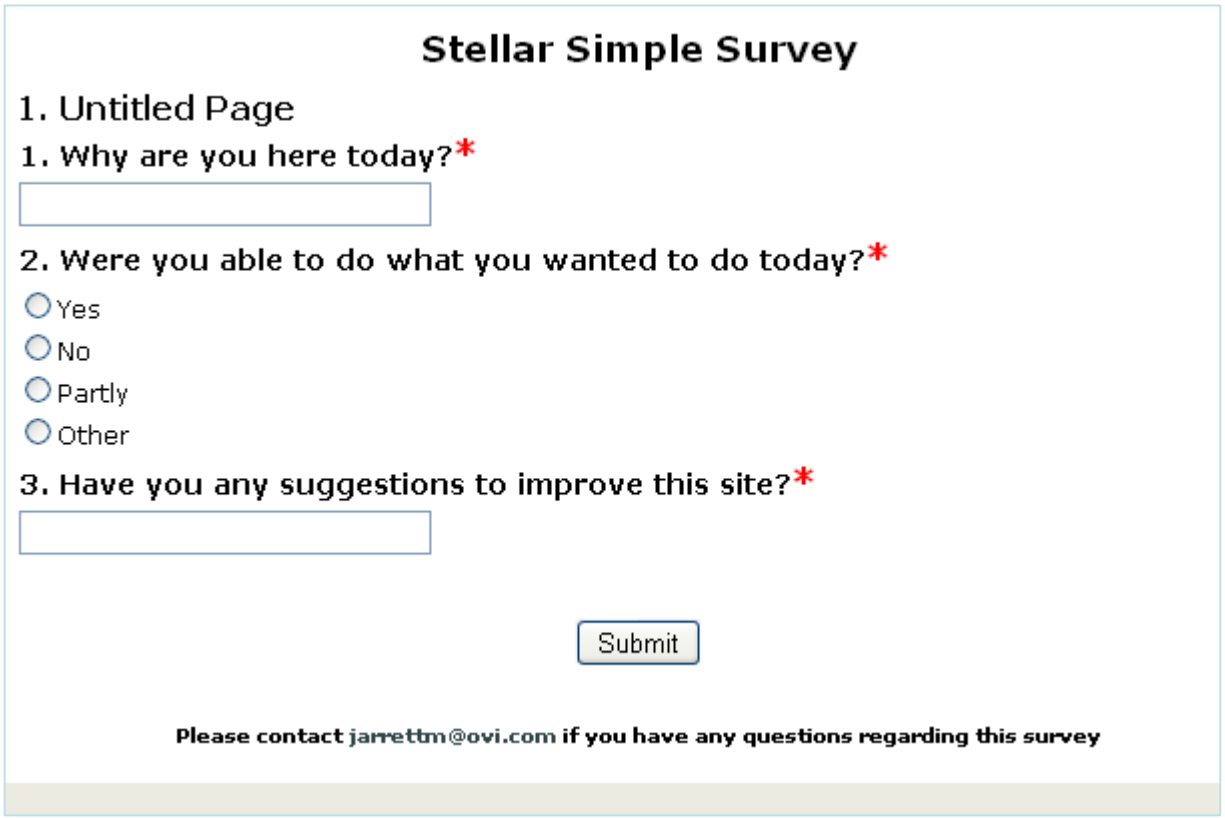
What tools do you use and why?

- What features are important to you?
- What flexibility do you have about choosing a tool?




Revised Simple Survey Version 2
Exit this survey
1. Visitor Survey
[redacted]
Your feedback will help us improve our web site
* 1. Why did you visit this web site today?
* 2. Were you able to do what you wanted to do today?
Yes
No
Other (please specify)
* 3. Have you any suggestions to improve this web site?
Done
Survey Powered by:
SurveyMonkey
"Surveys Made Simple."
Done


Stellar Simple Survey
1. Untitled Page
1. Why are you here today?*
2. Were you able to do what you wanted to do today?*
Yes
No
Partly
Other
3. Have you any suggestions to improve this site?*
Submit
Please contact jarrettm@ovi.com if you have any questions regarding this survey

Simple Survey for Caroline

Page One

1. Why are you here today? *

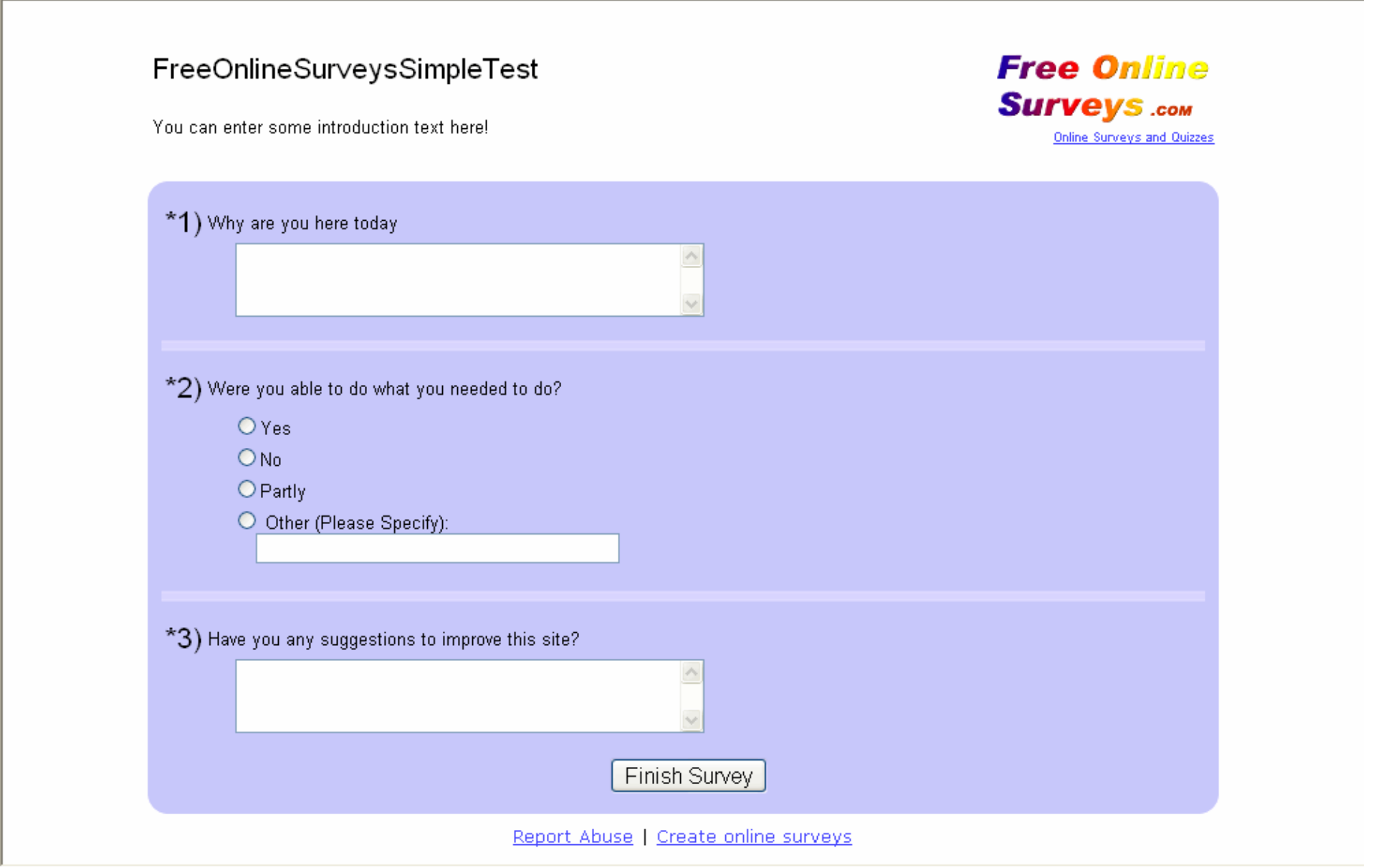
2. Were you able to do what you wanted to do? *

- Yes
- No
- Partly
- Other

3. Have you any suggestions to improve this site? *

Submit

0%


FreeOnlineSurveysSimpleTest
You can enter some introduction text here!
Free Online Surveys .com
Online Surveys and Quizzes
*1) Why are you here today
*2) Were you able to do what you needed to do?
Yes
No
Partly
Other (Please Specify):
*3) Have you any suggestions to improve this site?
Finish Survey
Report Abuse | Create online surveys

Tool	Free trial limitations	Visual	Thank you page	Email to a group	Security	Closure	Publication	Export answers
FreeOnline Surveys	one survey every 10 days with up to 10 questions, up to 50 responses, no skip logic	Choice of fixed themes	Vendor's advertising page	No	No	No	Web page	Fixed answers only, to PDF or PowerPoint
Lime Survey	up to 25 responses per month	Possible, requires HTML	Can design a simple page	No	"Token" system	Start and end date; quota?	Compre-hensive but cryptic	Excel, CSV and Word format
Poll Daddy	up to 10 questions per survey, up to 100 responses per month	Choice of fixed themes	Vendor's signup page	Yes, but we had problems with it	Yes, allow or deny access; password	By quota, and by date and time	Web page plus filters	No
Stellar Survey	up to 10 surveys, up to 10 questions per survey, up to 100 responses	Choice of fixed themes	Vendor's signup page	Yes, to an Address Book	One response per computer, user can edit answers	By date and time	Web page	Limited export to PDF
Survey Gizmo	14 days, up to 250 responses, no skip logic	Wide choice of fixed themes	Can design a page or direct to your choice of page	5 test emails (results discarded)	No	No	Web page	Excel and CSV format
Survey Monkey	up to 10 questions per survey, up to 100 responses per month, no skip logic	Choice of fixed themes	Vendor's advertising page	No	No	No	Web page	No

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Build

Usability test the questionnaire

- Is the time involved appropriate?
- Are questions clear and unambiguous?
- Is the questionnaire interesting for the respondents?

Build

Usability test the questionnaire

- Is the time involved appropriate?
- Are questions clear and unambiguous?
- Is the questionnaire interesting for the respondents?
- Add some probes from cognitive interviewing
  - What came to mind when you were answering this question?
  - What did that question mean to you?
  - How did you come up with that answer?

Build

Pilot test the questionnaire

- Run a small sample
- Try analyzing the results
- Check the results against the survey goals
- Eliminate off-topic questions
- Confirm the delivery method for target group

Outline

Acknowledgements and references

Contact details

Acknowledgement and references

- Thanks to Karen Bachmann
  - Workshop started as one that we presented together in 2002 and 2003
- Books on survey design
  - Dillman, D.A., Smyth, J.D. and Christian, L.M. (2009) Internet, Mail and Mixed Mode Surveys: The Tailored Design Method
    - Very practical, informed by many years' research. Written in a straightforward style.
    - The earlier editions (1999 and 2007) are also good and you may be able to get one cheaply second-hand
  - Gilham, Bill (2008) "Developing a questionnaire" Continuum Books
    - Thin, clear and practical book that takes you through the survey process.
    - My edition is the 2000; there is a newer one in 2008 which I'm sure will be even better
  - Schuman, H. and Presser, S. (1996) "Questions and Answers in Attitude Surveys: Experiments on Question Form, Wording, and Context"
    - Thorough analysis of all the ways in which questions can be slippery, based on many years' research.

Other references

- Krosnick, J. and Presser S. (2009) “Question and Questionnaire Design” in Handbook of Survey Research (2nd Edition) James D. Wright and Peter V. Marsden (Eds).
  - http://comm.stanford.edu/faculty/krosnick/Handbook%20of%20Survey%20Research.pdf
  - Literature review, comprehensively referenced
- Bhandari, M. et al (2002) “A randomized trial of opinion leader endorsement in a survey of orthopaedic surgeons: effect on primary response rates” 1. Int. J. Epidemiol. (2003) 32 (4): 634-636. doi: 10.1093/ije/dyg112
  - http://ije.oxfordjournals.org/content/32/4/634.full.pdf+html
- Quesenbery, W. and Brooks, K. (2010) “Storytelling in user experience design” Rosenfeld Media
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Wrap up and feedback

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