

Surveys that work

An introduction to using
survey methods

Caroline Jarrett and Jane Matthews

Agenda

Introductions

What is a survey?

Goals and users

Better questions

Lunch

Building a questionnaire

Analysis and reporting

Wrap up

Introductions

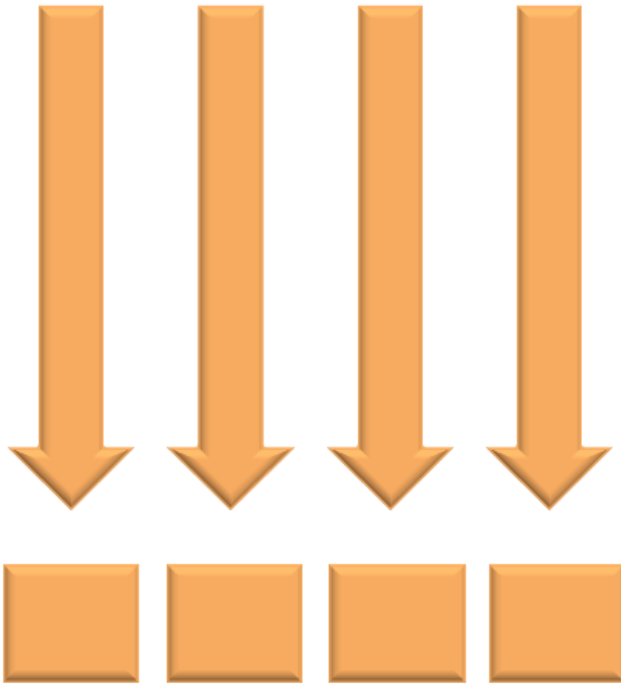
(We're Caroline Jarrett and Jane Matthews)

- Your name and role
- A random thing about yourself

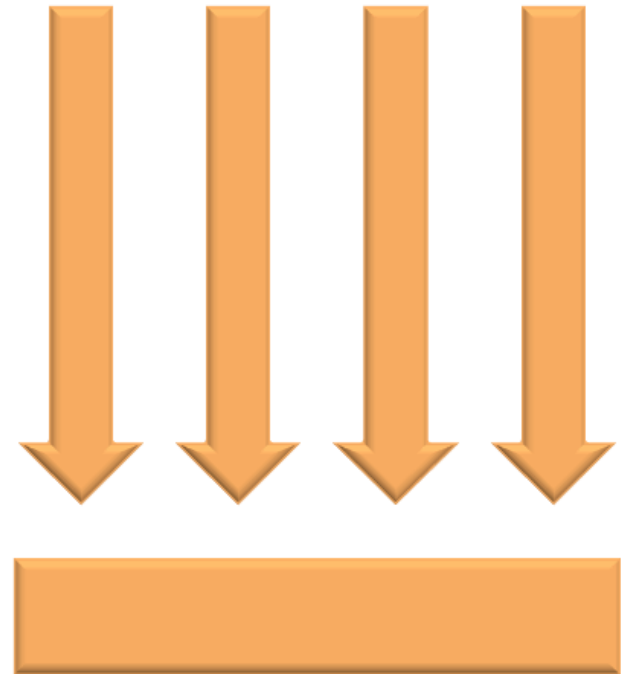


Forms and questionnaires differ in how the answers are used

Form:
answers used individually

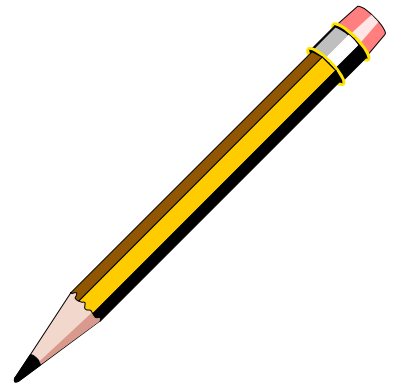


Questionnaire:
answers aggregated

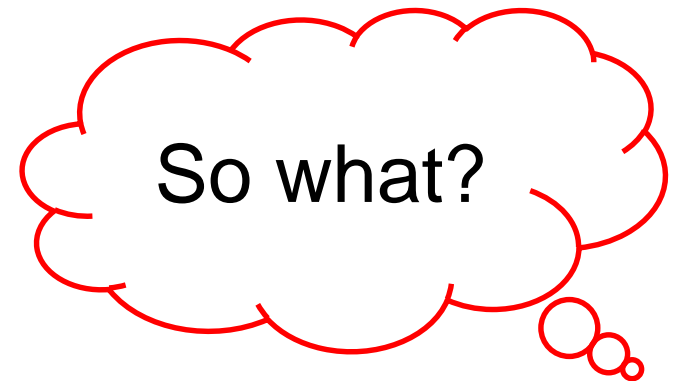
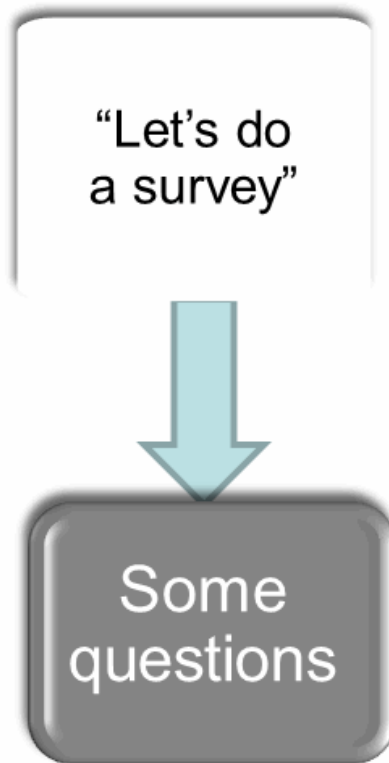


Is this a survey or something else?

- Decide whether this example is a form, a survey, or something else

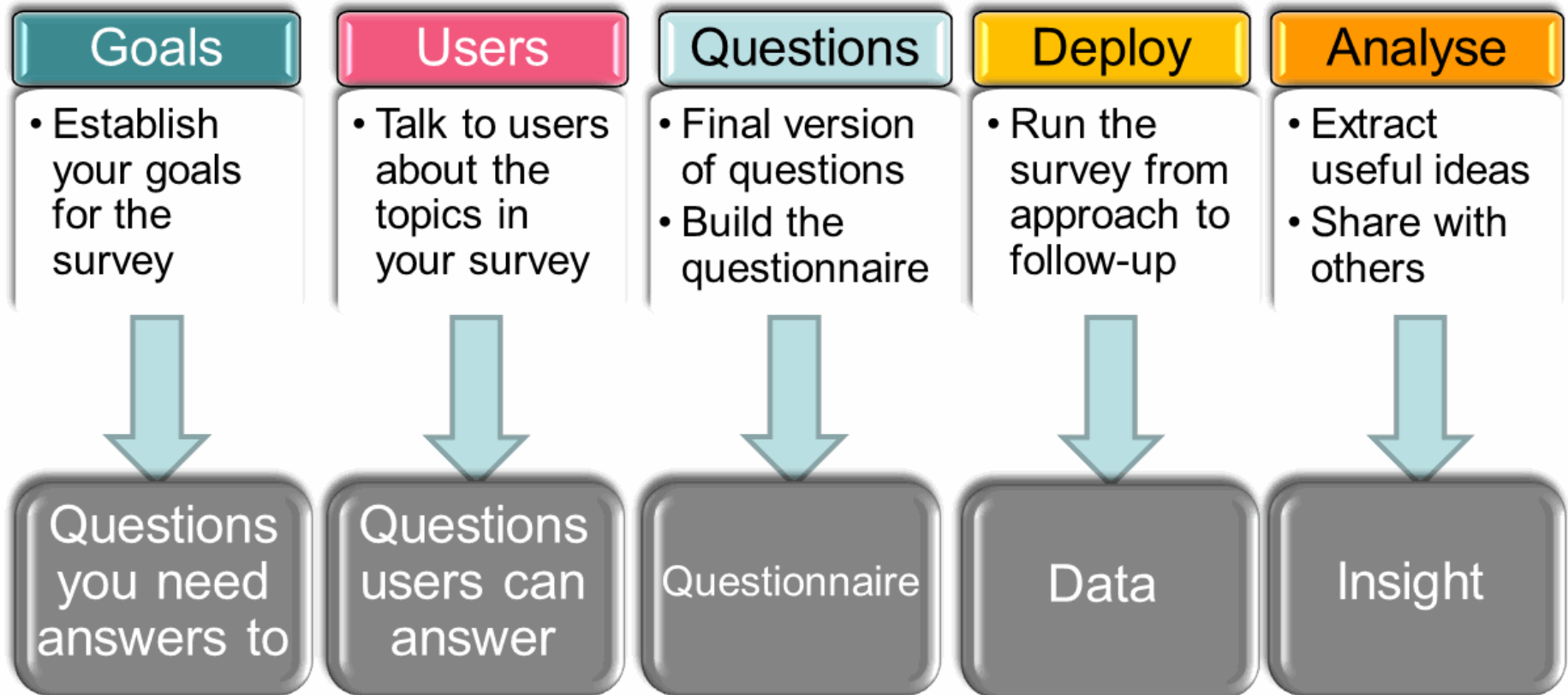


Where we often are with surveys

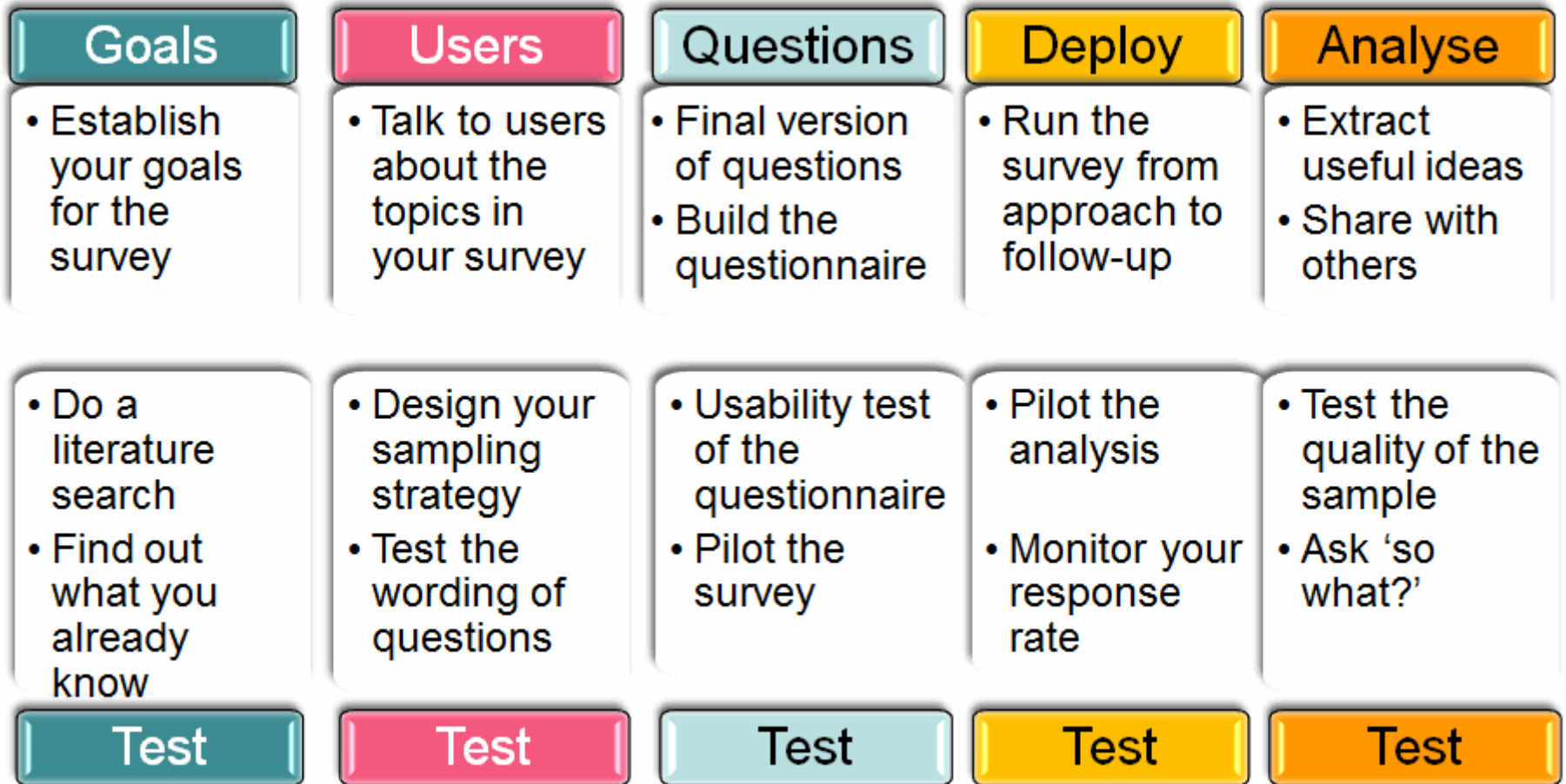


Survey = Questionnaire + Process

A basic survey process



A complete process



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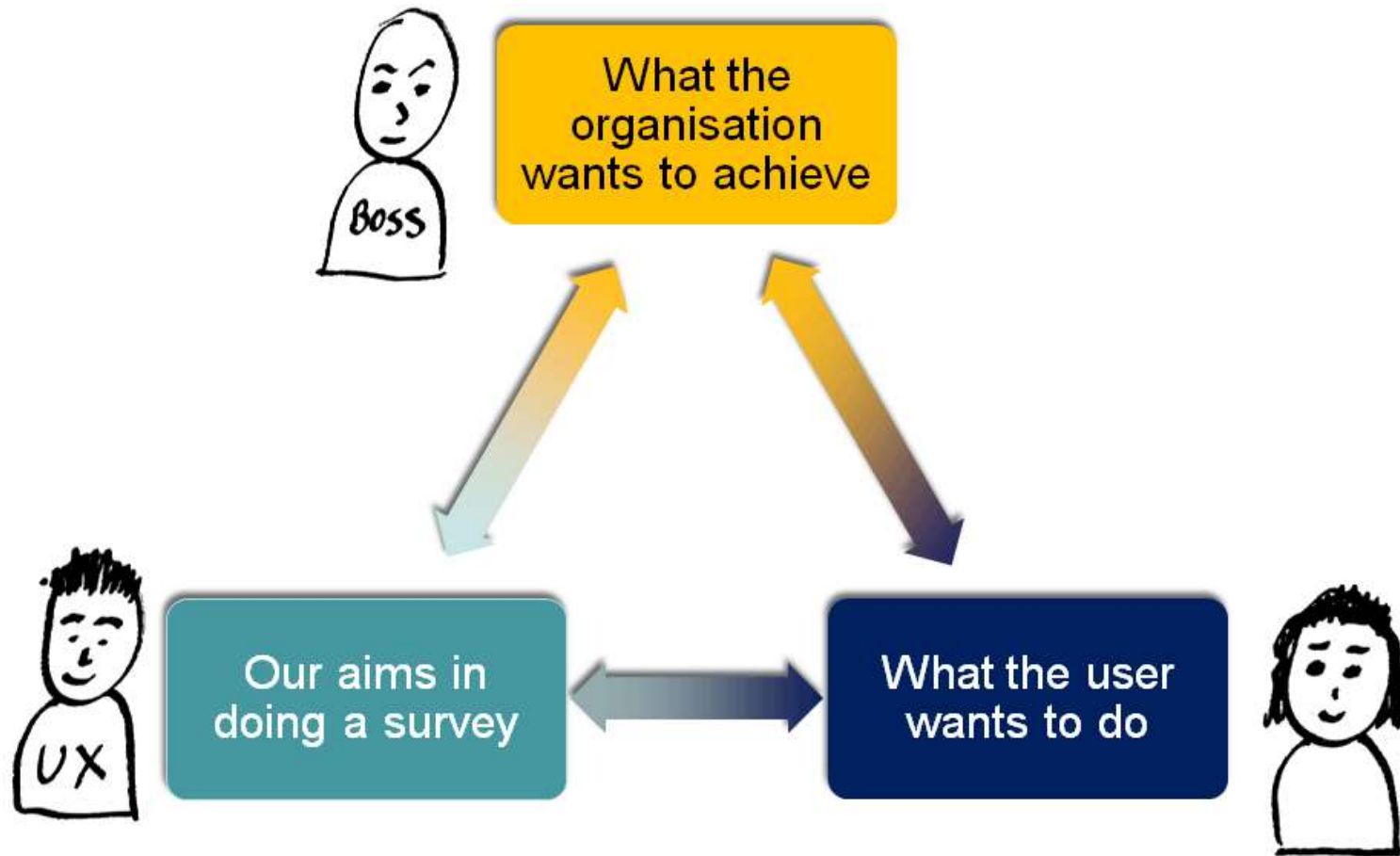
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We've got a lot of different goals to consider



Establish your goals for the survey

- What do you want to know?
- Why do you want to know?
- What decisions will you make based on these answers?



Goals for this survey

- Here's are the questions from one of our examples
- What do you think the goals are?
- What do you think the decisions are likely to be?



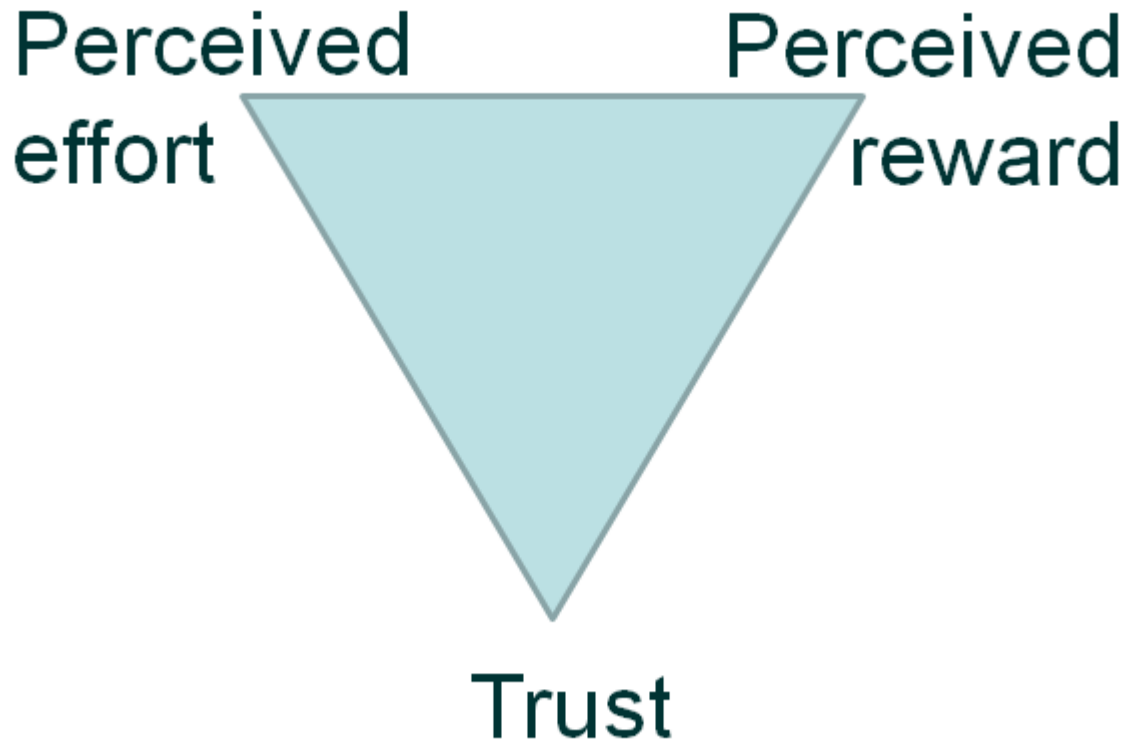
Talk to users about the topics in your survey

- Who are they?
- How will you find them?
- Do they want to answer your questions?
- Do they understand your questions?



Response relies on effort, reward, and trust

Users



Identify what's happening

- Review this example for
 - The reward
 - The effort
 - Trust



Response relies on effort, reward, and trust

Users

Luton Business Survey 2011 - YOUR HELP IS NEEDED

Adams, Orchid <Orchid.Adams@luton.gov.uk>

Sent: Mon 06/06/2011 09:49

To:

Message image007.gif (841 B) image009.jpg (2 KB) image011.jpg (2 KB) image002.gif (841 B) image003.jpg (2 KB)
image004.jpg (2 KB) image005.gif (841 B) image006.jpg (2 KB) image007.jpg (2 KB) image002.gif (845 B)
image003.jpg (2 KB) image004.jpg (2 KB) image005.gif (845 B) image006.jpg (2 KB) image007.jpg (2 KB)

We want Luton to be a great place to do business.
We need your help to make this happen.



Luton Borough Council, alongside BMG Research, are currently conducting a business survey about the needs of local businesses. This will help the Council to effectively shape and deliver services that support long term economic growth. We would be grateful if you could participate in this online survey and help us to help you. The survey will expire on 26th June 2011


[Click Here to Complete Survey](#)

An example survey opening screen

- Does this example offer the right balance between
 - Perceived effort
 - Perceived reward
 - Trust?



Difference between response, response rate and representativeness

| Concept | Definition | Example |
|--------------------|---|---|
| Response | Number of answers | 5,000 |
| Response rate | Response divided by the number of invitations | 10% |
| Representativeness | Whether respondents you get are typical of the users you want |  |

This survey got 54 results

- Is this a good response or not?
- What do we think about representativeness?



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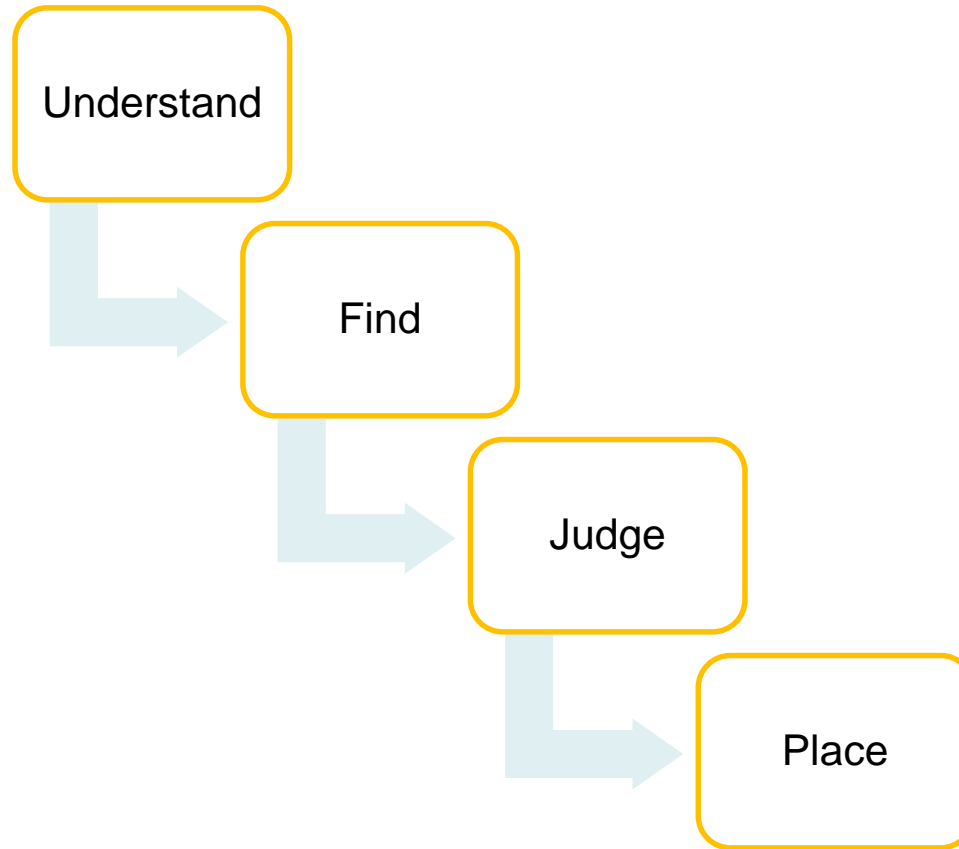
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There are four steps to answer a question



Please indicate to which occupational group the Chief Income Earner in your household belongs, or which group fits best.

This could be you: the Chief Income Earner is the person in your household with the largest income.

If the Chief Income Earner is retired and has an occupational pension please answer for their most recent occupation.

If the Chief Income Earner is not in paid employment but has been out of work for less than 6 months, please answer for their most recent occupation.

- ☐ Semi or unskilled manual work
(e.g. Manual workers, all apprentices to be skilled trades, Caretaker, Park keeper, non-HGV driver, shop assistant)
-
- ☐ Skilled manual worker
(e.g. Skilled Bricklayer, Carpenter, Plumber, Painter, Bus/ Ambulance Driver, HGV driver, AA patrolman, pub/bar worker, etc)
-
- ☐ Supervisory or clerical/ junior managerial/ professional/ administrative
(e.g. Office worker, Student Doctor, Foreman with 25+ employees, salesperson, etc)
-
- ☐ Intermediate managerial/ professional/ administrative
(e.g. Newly qualified (under 3 years) doctor, Solicitor, Board director small organisation, middle manager in large organisation, principal officer in civil service/local government)
-
- ☐ Higher managerial/ professional/ administrative
(e.g. Established doctor, Solicitor, Board Director in a large organisation (200+ employees, top level civil servant/public service employee))
-
- ☐ Student
-
- ☐ Casual worker - not in permanent employment
-
- ☐ Housewife/ Homemaker
-
- ☐ Retired and living on state pension
-
- ☐ Unemployed or not working due to long-term sickness
-
- ☐ Full-time carer of other household member
-
- ☐ Other

Understand
Find
Judge
Place

Review these questions from a survey

- Think about the four steps of answering a question:
 - Read and understand the question
 - Find the answer
 - Judge whether the answer fits
 - Place the answer
- Any problems with any of the questions?
- If so, which step(s) are problematic?



“Place the answer” is also about using the right widget to collect the answer

| Use | For |
|---------------|------------------------|
| Radio buttons | A single known answer |
| Check boxes | Multiple known answers |
| Text boxes | Unknown answers |

Write good questions

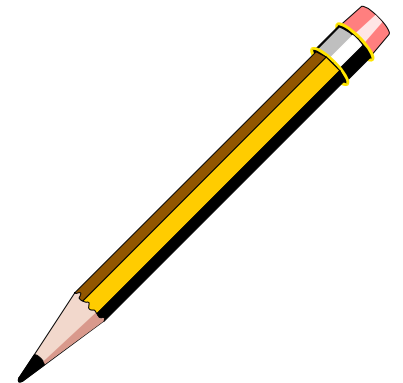
- Mix question types: choice and open
- Avoid leading questions
- Present one question at a time
- Keep positive; negatives are harder to understand
- Avoid two-option answers (yes/no)



Writing better questions

We've chosen some questions from a longer survey

Can you improve any of them?



Likert had several different types of response format 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)

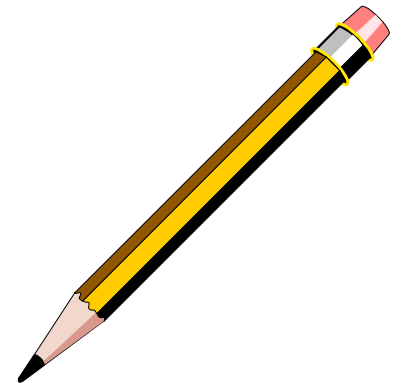
17. The United States, whether a member or not, should co-operate fully in the humanitarian and economic programs of the League of Nations.

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

Likert response formats are useful

Here's a selection of questions using these formats

- Any problems you can see?
- Any examples of particularly good practice?



You can find an academic paper to support almost any number of response points

- Krosnick and Presser refer to ~87 papers on response points

| | Completely satisfied | Very satisfied | Quite satisfied | Neither satisfied nor dissatisfied | Quite dissatisfied | Very dissatisfied | Completely dissatisfied |
|--|-----------------------|-----------------------|-----------------------|------------------------------------|-----------------------|-----------------------|-------------------------|
| Your outward journey with easyJet | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Your whole experience with easyJet on this latest occasion | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | True | False |
|---|-----------------------|-----------------------|
| I usually get what I want in life. | <input type="radio"/> | <input type="radio"/> |
| I need to be kept informed about news events. | <input type="radio"/> | <input type="radio"/> |

| | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree | Not Applicable |
|--|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| | 5 | 4 | 3 | 2 | 1 | |
| Overall, I was satisfied with my experience in Hayward Dining Room | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please tell us how your experience at John Lewis compares to each of the other retailers you have visited?

| | John Lewis is WORSE | About the same | John Lewis is BETTER |
|---|-----------------------|-----------------------|-----------------------|
| Supermarket | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other local stores/independent retailer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

1. Is this OK? Tell us if you agree with us.

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

2. Tell us more about this

| Very Unimportant | 2 | 3 | Very Important |
|-----------------------|-----------------------|-----------------------|-----------------------|
| 1 | | | 4 |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

1: *Please rate how well the site is organized.

1=Poor Excellent=10

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Don't Know |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------------|
| <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 checked="" type="radio"/> |

Krosnick, J. A. and S. Presser (2009). Question and Questionnaire Design. Handbook of Survey Research (2nd Edition) J. D. Wright and P. V. Marsden, Elsevier. <http://bit.ly/KNWlio>

Grids are often full of problems at all four steps

BBC

OPINION SURVEY

You have completed 48% of the survey so far:

100%

For the following statements about the **Commercial Availability** site, please give a mark out of 10, where 1 indicates 'Strongly Disagree' and 10 indicates 'Strongly Agree'.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Don't know |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| It's the kind of website I would talk to other people about | <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 felt I learnt something new from visiting this website | <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"/> |
| This website inspired me to do something new | <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 found this website engaging | <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 website is up to date | <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 website is fresh and new | <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 website reflects British culture | <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"/> |

← Previous

Next →

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For informed direction

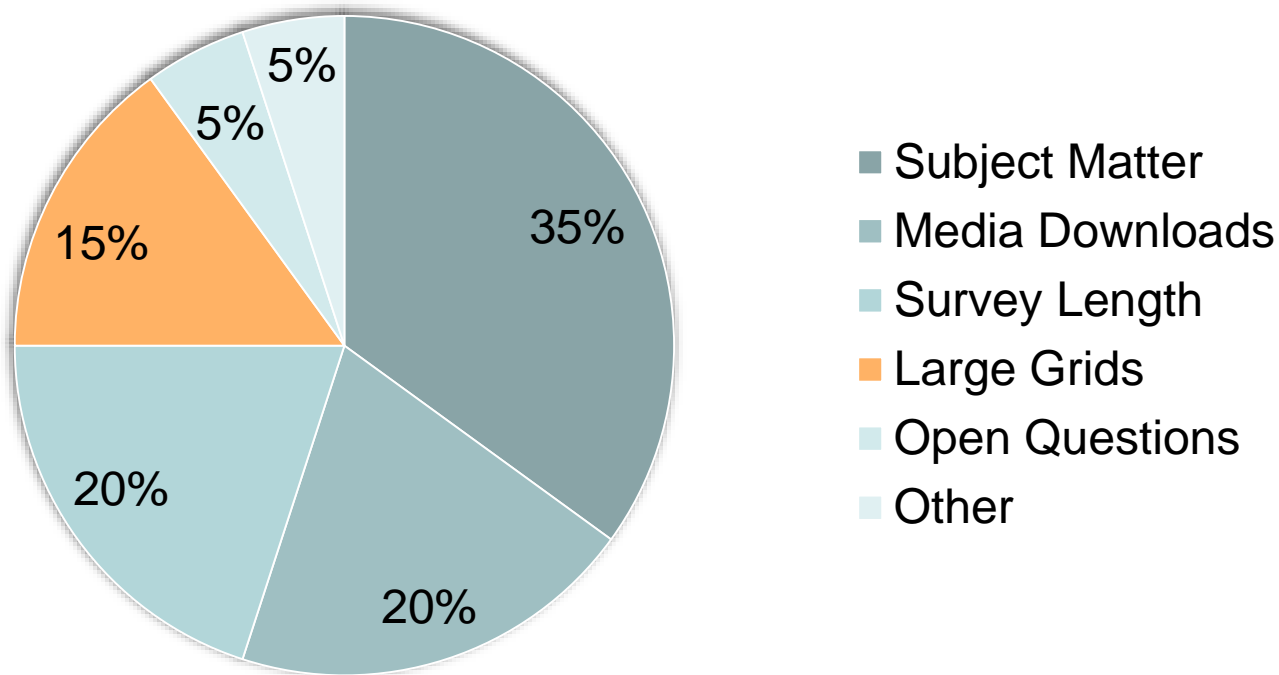
Click here to go back to bbc.co.uk

BBC

For any comments about the content of this survey, please contact bbc@digitalresearch.com
About any other issue, please contact the BBC via <http://www.bbc.co.uk/feedback>
If you would like further information please read the BBC's privacy policy at <http://www.bbc.co.uk/privacy>

Grids are a major cause of survey drop-out

Total incompletes across the 'main' section of the questionnaire
(after the introduction stage)

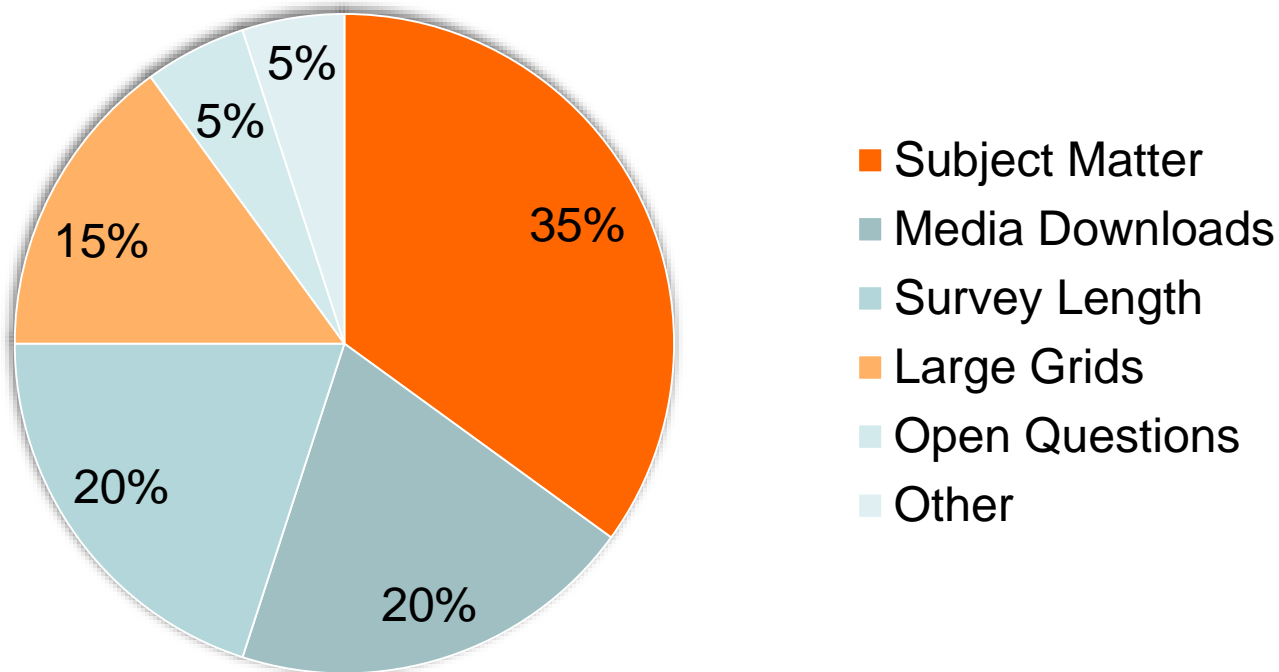


Source: Database of 3 million+ web surveys conducted by Lightspeed Research/Kantar

From Coombe, R., Jarrett, C. and Johnson, A. (2010) "Usability testing of market research surveys" ESRA Lausanne

But it's the topic that matters most

Total incompletes across the 'main' section of the questionnaire
(after the introduction stage)



Source: Database of 3 million+ web surveys conducted by Lightspeed Research/Kantar

From Coombe, R., Jarrett, C. and Johnson, A. (2010) "Usability testing of market research surveys" ESRA Lausanne

Your answers to this survey are important for our work



But what's in it for me? And I'm really ready for a break.



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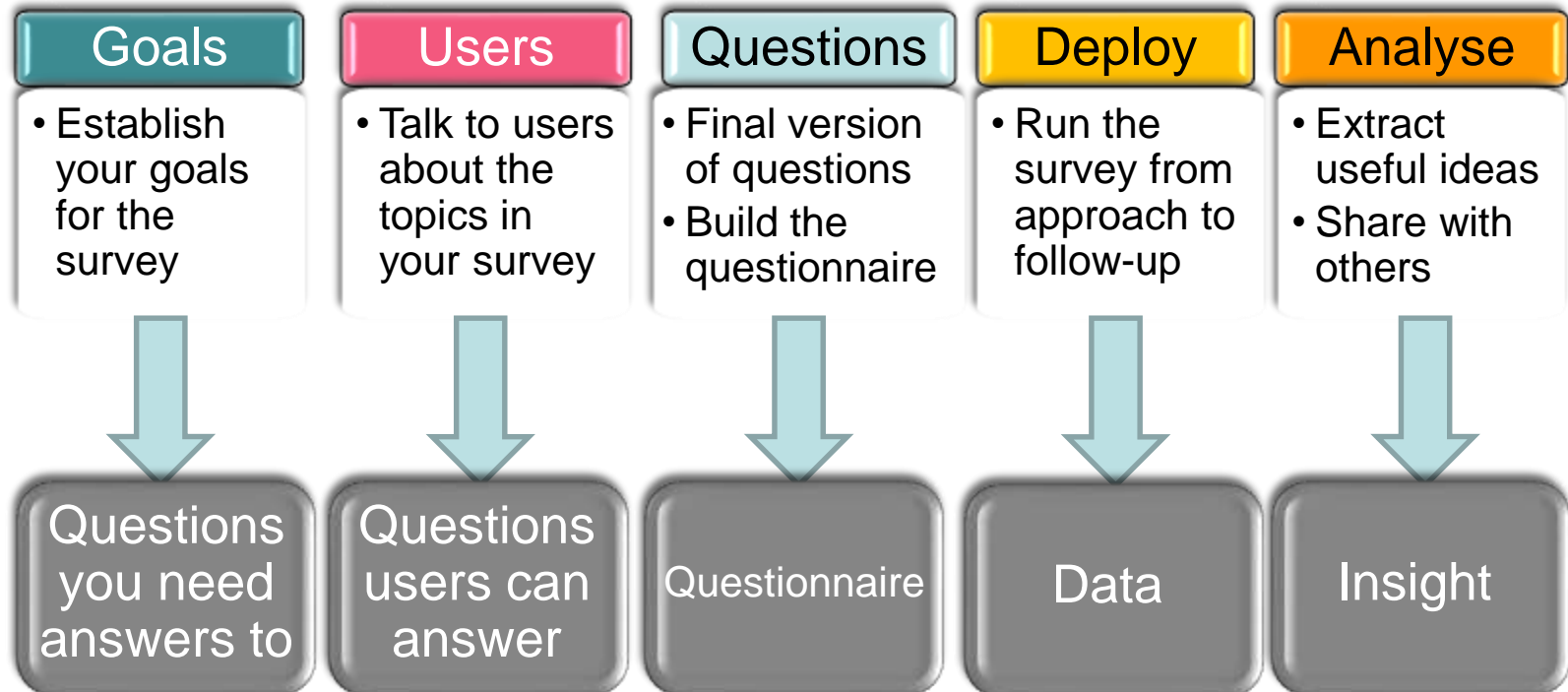
Analysis and reporting

Wrap up

Survey = questionnaire + process



A basic survey process



Goals and users for the survey

- We've had a request for help with a survey
- Write down:
 - Who the users are
 - How you might reach those users
- Write down the goals for the survey



Put together some questions



Review and make suggestions

- Review these questions, thinking about the four steps
 - Understand
 - Find
 - Judge
 - Place
- If you think any of the questions could be improved then draft new ones
- Check that the questions have appropriate answer options



Dear Epson Customer, review your Epson Stylus Office BX625FWD

Epson UK <epsonnewsletter@info.epson-europe.com>

 Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Sent: Fri 14/10/2011 09:29

To: caroline.jarrett@effortmark.co.uk



If you're having trouble viewing this email please [click here](#)



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.
EPSON - EXCEED YOUR VISION



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REVIEW YOUR Epson Stylus Office BX625FWD



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture...

Dear Epson customer,

Thank you for choosing an Epson Stylus



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.
Epson Stylus Office BX625FWD

EPSON®
EXCEED YOUR VISION



REVIEW YOUR EPSON STYLUS OFFICE BX625FWD



Dear Epson customer,

Thank you for choosing an Epson Stylus Office BX625FWD. We'd like to hear about your experience – please tell us what you think.

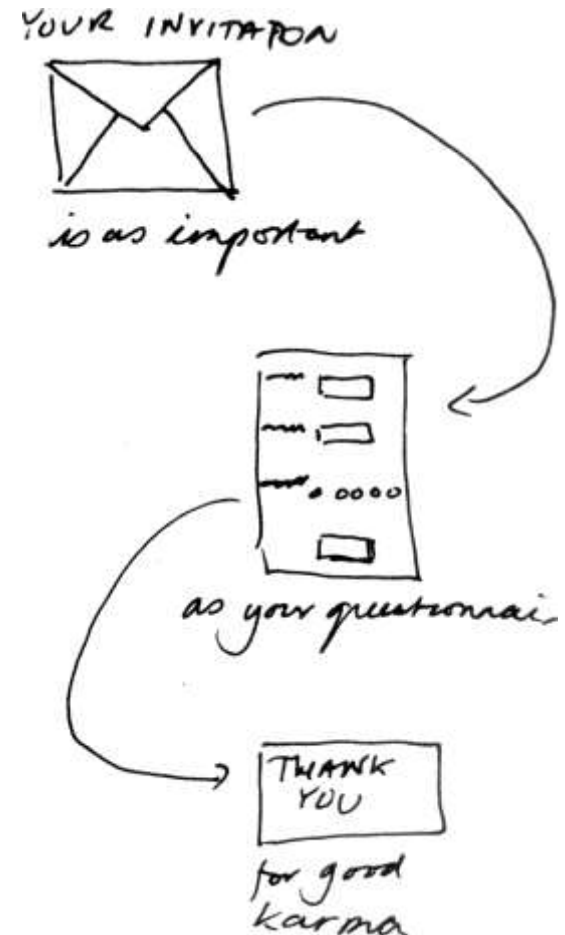
Your opinion is valuable to us, and will help us develop products that best meet your needs. [Your review](#) will also help others to choose the right product.

WRITE YOUR REVIEW

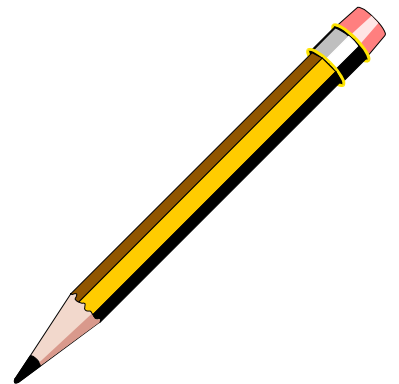


The elements of a good invitation

- Trust:
 - Say who you are
 - Say why you've contacted this person specifically
- Perceived reward:
 - Explain the purpose of the survey
 - Explain why this person's responses will help that purpose
 - If there is an incentive, offer it
- Perceived effort:
 - Outline the topics of the survey
 - Say when the survey will close
 - Do NOT say how long it will take
 - (unless you have tested the heck out of it and are extremely sure that you know the answer)



Write the invitation and thank-you



Test it



Report back on your questionnaire



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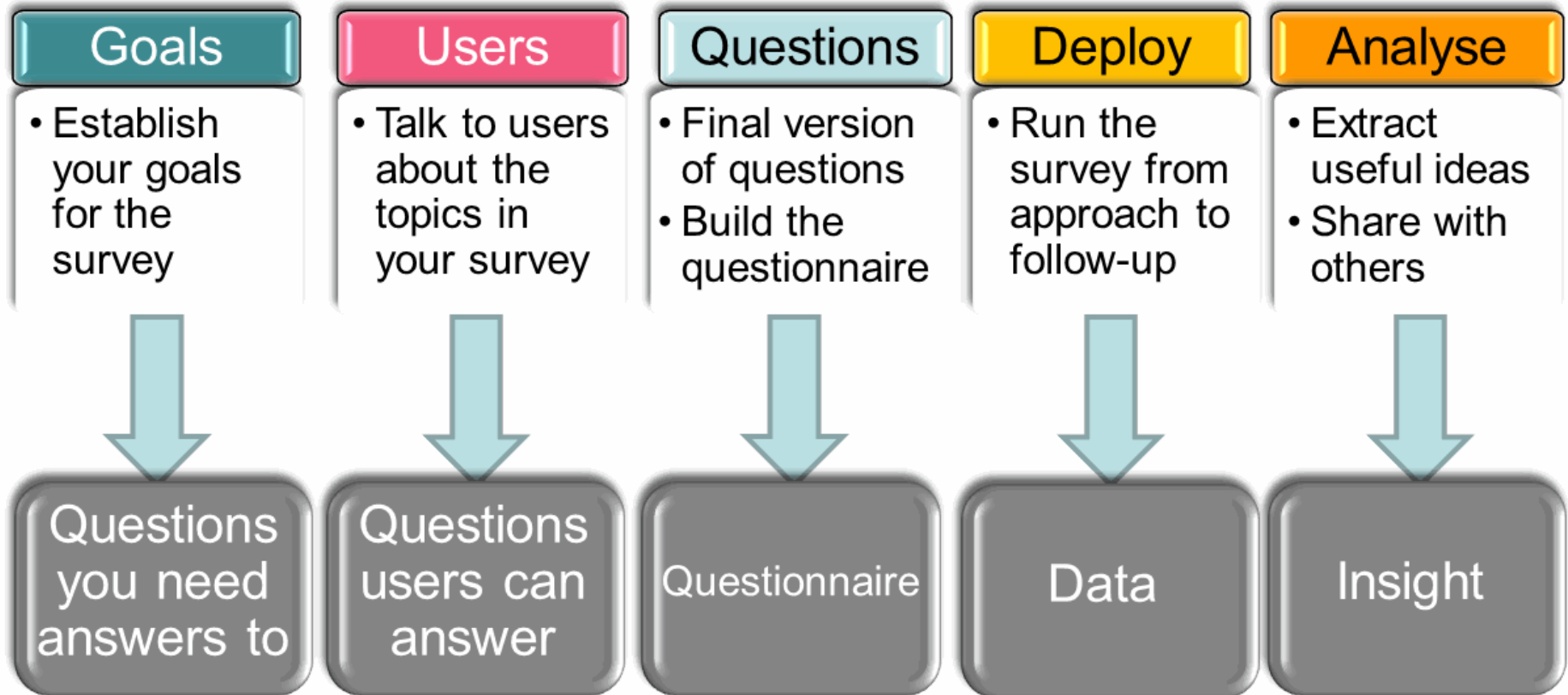
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Analyse

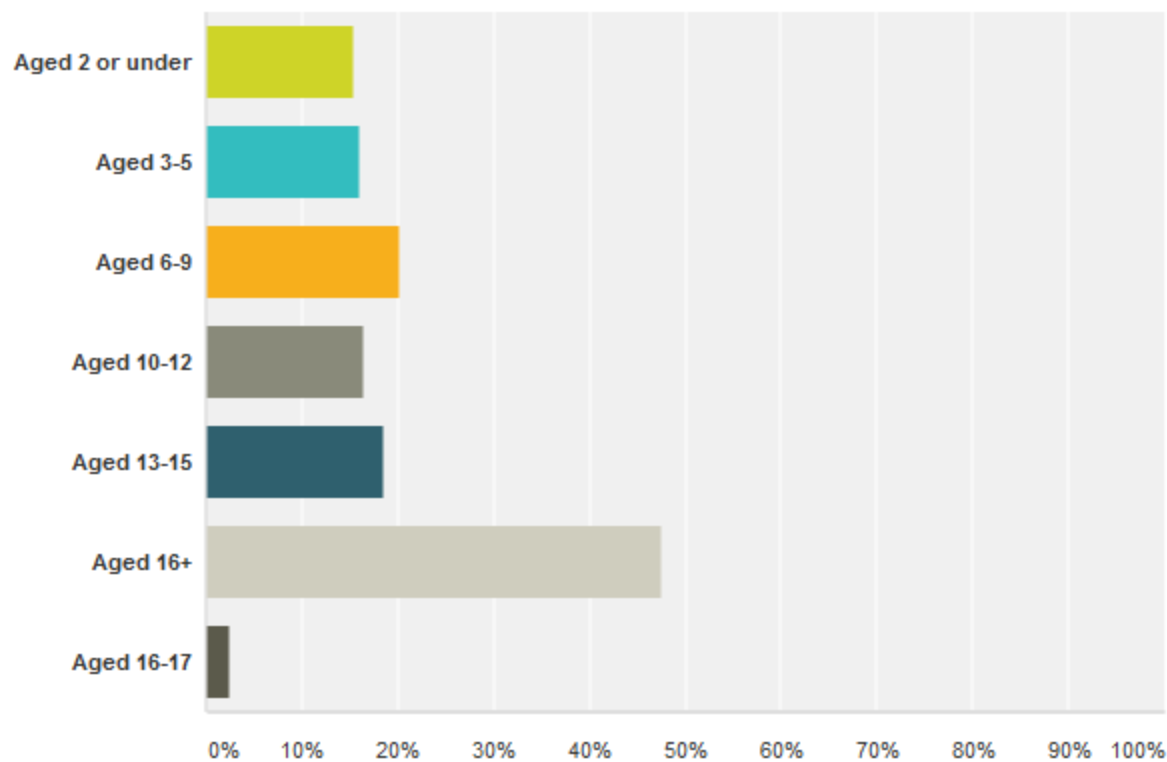
Prepare the raw data

Find some insight

Deliver your report

Are you a parent or guardian of a child in any of the following age bands (please tick all that apply)?

Answered: 5,975 Skipped: 40,049



Clean your data

- Look for gaps and missing entries
- Remove any (unintended) duplicate responses
- Read the answers to make sure that they make sense compared to the questions



Look after your data

- Data analysis can take a long time; you won't want to repeat it
 - Make copies of your data, especially before any drastic change
 - 'Undo' doesn't always work on large files
- Make notes of what you did
 - It helps if you have to defend your conclusions
 - It's hard to remember the details a year later



Decide what to do when people have skipped questions or dropped out

1. Remove the whole of that person's response
2. Use the partial responses, and accept that your number of responses is lower for some questions
3. Calculate an "imputed value"
 - Include a flag showing that the value is calculated
 - Estimate the most likely value using the other data

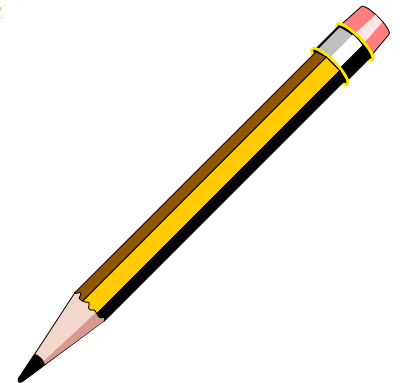
If you're not a statistician,
you might need to find one
to help with this



Check the representativeness of your sample

Analyse

Is this sample representative?

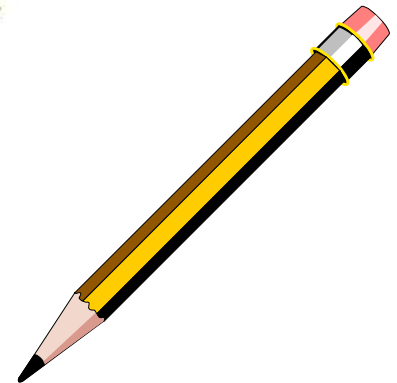


Check the representativeness of your sample

Population of assorted birds



Is this sample representative?



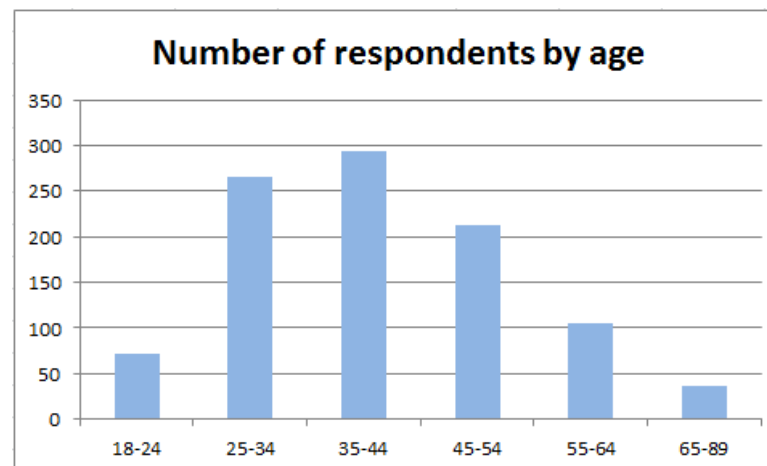
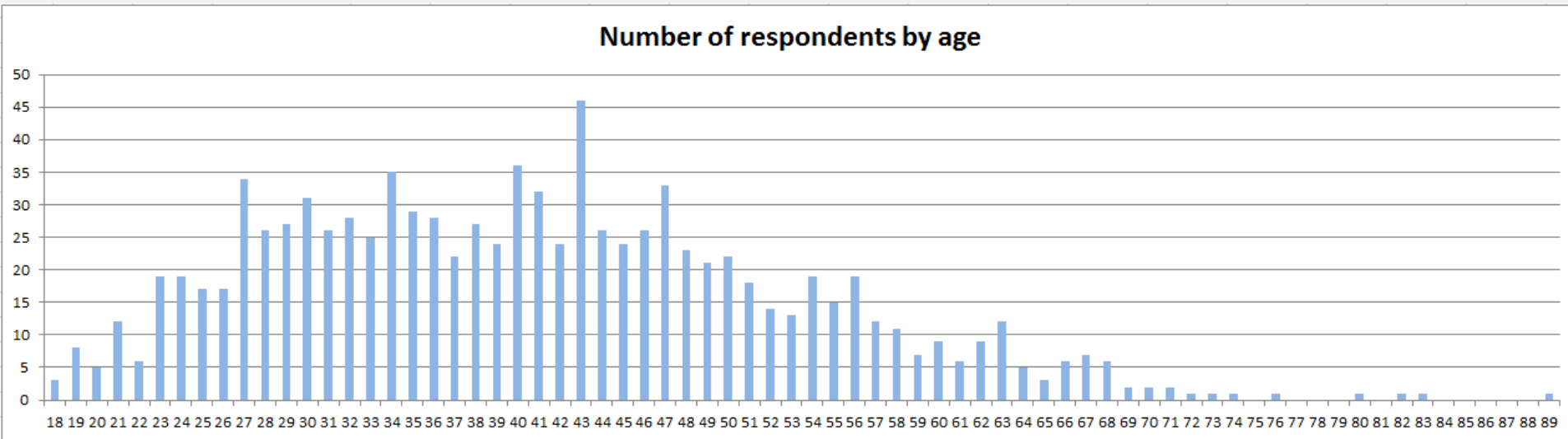
Analyse

Prepare the raw data

Find some insight

Deliver your report

Create “bins” for closed questions

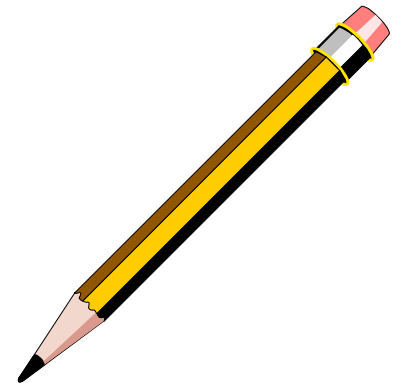


Dealing with rating questions

- This questionnaire got these responses to a question about noise levels:

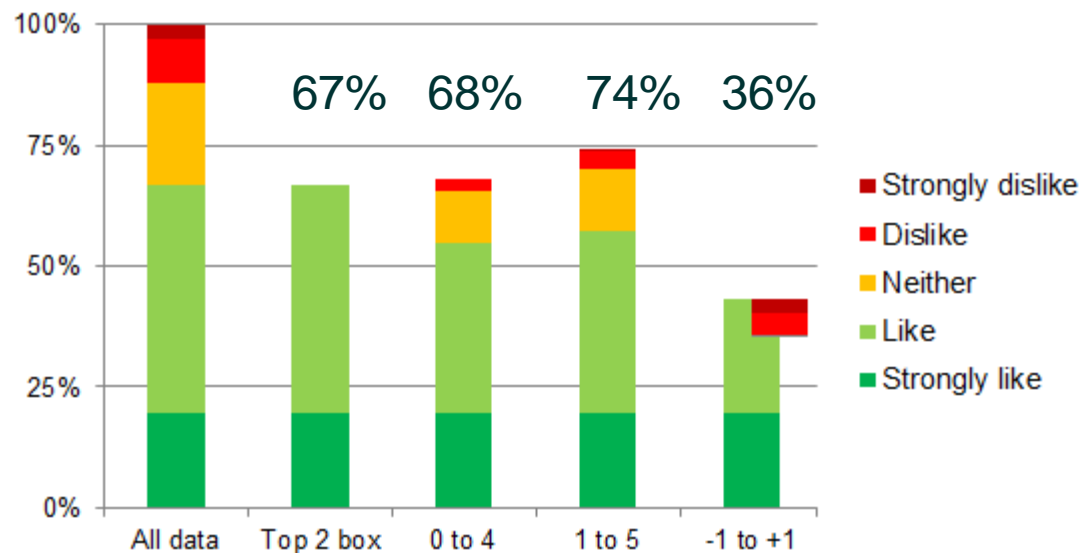
| | |
|--------------------------|----|
| Strongly dislike | 2 |
| Dislike | 6 |
| Neither dislike nor like | 14 |
| Like | 31 |
| Strongly like | 13 |
| Total responses | 66 |

- Please work out:
the percentage of respondents
who like the noise levels



There are many ways to combine ratings into means and percentages

- 'Top box' / 'top 2 box' uses the positive responses
- '0 to 4' weights responses: 0%, 25%, 50%, 75%, 100%
- '1 to 5' weights responses: 1, 2, 3, 4, 5 (then divide by 5)
- '-1 to 1' weights responses: -100%, -50%, 0, 50%, 100%



To deal with open questions: read and think

Read all
the answers

Tiny number of
irrelevancies

Ignore them:
focus on your key
findings instead

A few illuminating
comments

Quote them:
your stakeholders
should see them

Lots of themes,
similarities, repetition

Code them:
summarize into
categories

Coding example:

Name four things that appear in this picture



René Magritte "L'Histoire centrale" ("The heart of the matter"), Dexia Collection

Image credit: http://www.dexia.com/EN/our_commitments/an_update_on_our_commitments/Documents/110915_Tableau_du_mois_Magritte_EN.pdf



Case Study: Six untrained coders were invited to describe the picture below ('The Heart of the Matter', by Rene Magritte). Each coder was allowed 15 minutes in which to select appropriate codes from the **Art and Architecture Thesaurus (AAT)** from the **Getty Museum**. The resulting codings are shown below.



Rene Magritte: 'The Heart of the Matter'

| CODER 1 | CODER 2 | CODER 3 | CODER 4 | CODER 5 | CODER 6 |
|---|--|---|--|--|---|
| Suitcases 46224 | Suitcases 46224 | Suitcases 46224 Leather 11845 | Case 45659 | Luggage 225937 | Suitcases 46224 |
| Brass instrument 42276 | Trombones 42335 | Musical instruments 41620 | Trombones 42335 | Trombones 42335 | Trumpets 42339 |
| Tables (support furniture) 39548 | | Tables (support furniture) 39548 | Tables (support furniture) 39548 | | Tables (support furniture) 39548 |
| Women 25943 | Models (people) 25848 Arms 40237 | | Women 25943 Dress 46159 | Women 25943 | Adult 154397 |
| | Standing 239500 | Standing 239500 | Standing 239500 | Still lifes 15638 | Standing 239500 |
| Cloth 62391 | Cloth 62391 | Scarves (costume accessories) 46123 | Face masks 262834 Cloth 62391 | Covers (overlying objects) 246275 Head-cloths (headgear) 213003 | Cloth 62391 |
| | | Brown 127490 | | | Blue 129361 |

Have a go at coding

- Here are some answers from a survey
- Are there any themes?
- How would you code them?



CAQDAS tools are available (but are a big challenge)

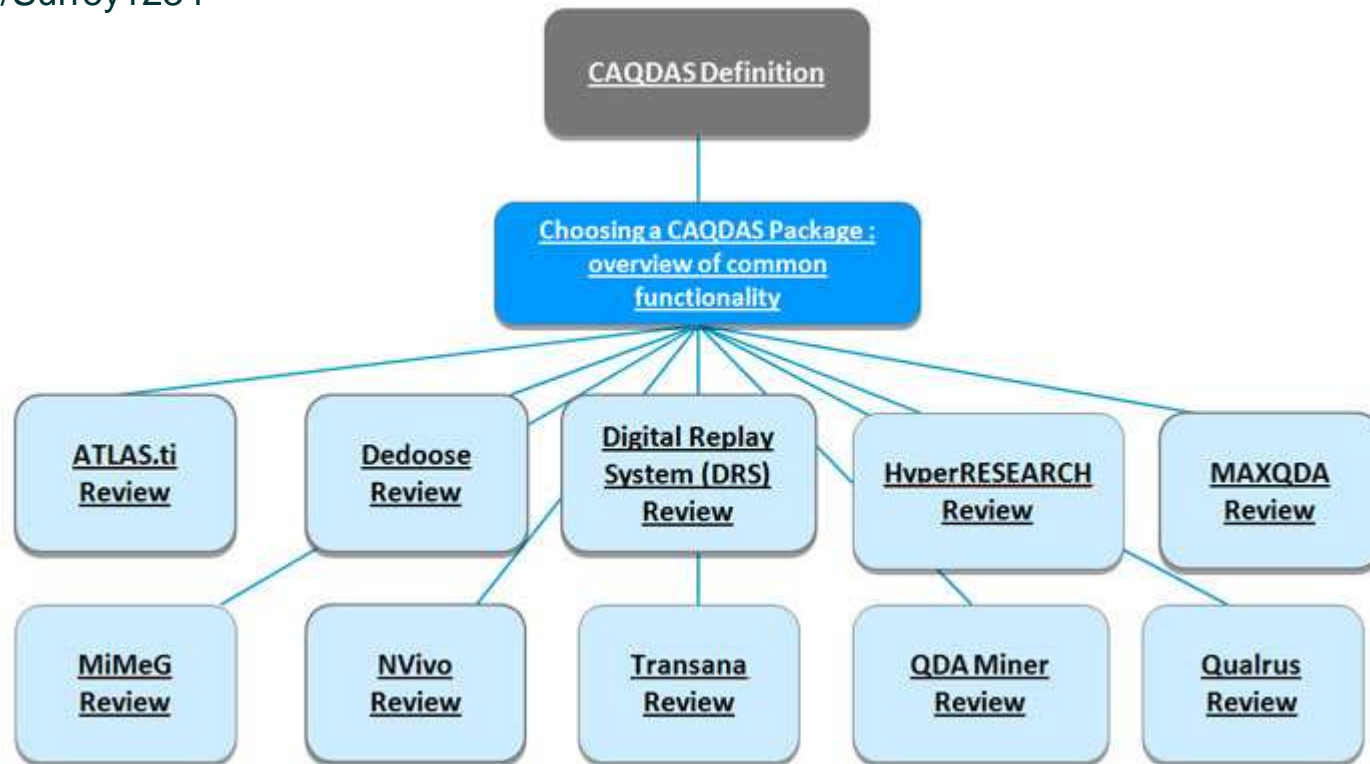
Analyse

Before buying one, read this site:

<http://www.surrey.ac.uk/sociology/research/>

[researchcentres/caqdas/support/choosing/index.htm](http://www.surrey.ac.uk/sociology/research/researchcentres/caqdas/support/choosing/index.htm)

<http://bit.ly/Surrey1234>



Wordle.net example: in favour of Facebook



Another: against Facebook



Wordle from a survey on usability certification



Analyse

Prepare the raw data

Find some insight

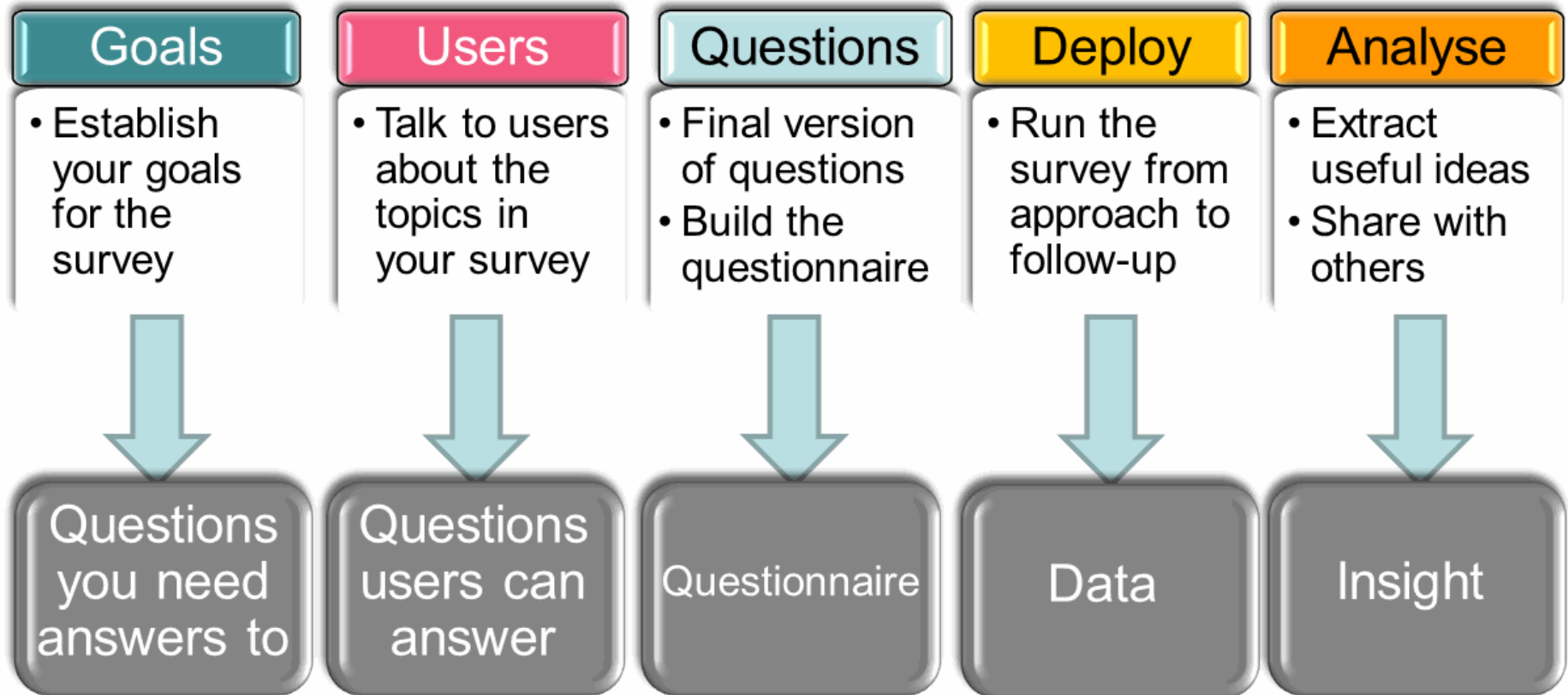
Deliver your report

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"



A basic survey process

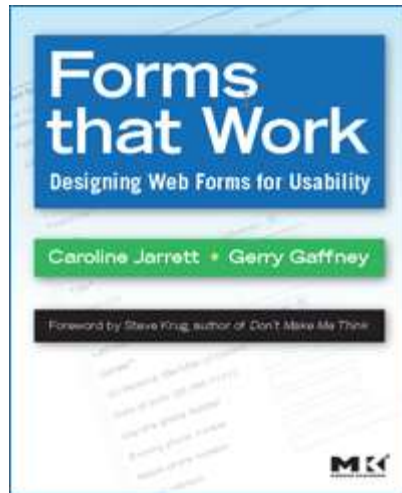


Should I do this survey?



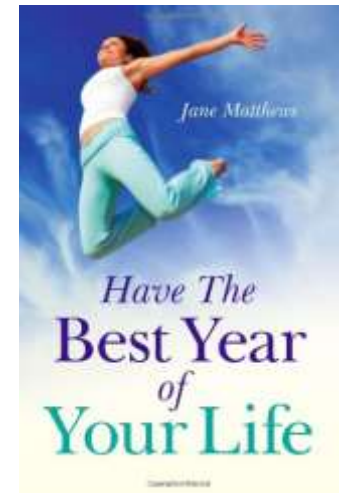
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