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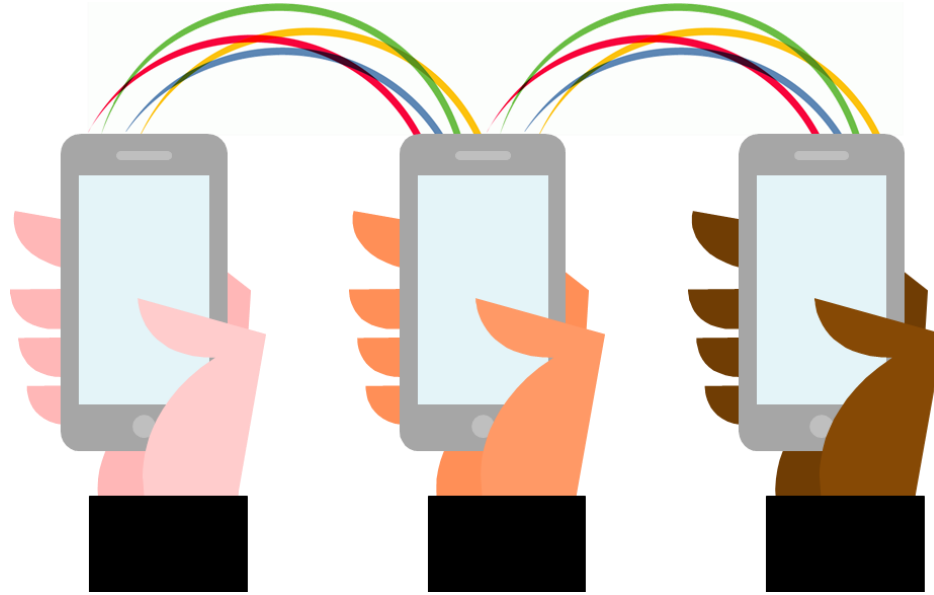
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## **How should we adapt complex social research questionnaires for mobile devices?**

Evidence from UK surveys and experiments

Tim Hanson

QDET2, November 12th 2016

# Agenda

- UK context
- Evidence from UK social surveys
- Usability testing, key issues and principles
- Grids experiment
- Conclusions

## Growth in ownership and use of smartphones for online activity

7 in 10 UK adults (71%) owned a smartphone in Q1 of 2016 – up from 39% in 2012

2016 study showed that UK adults spent an average of 93 minutes per day on their smartphones

Importance of smartphones also grows – 36% now cite their smartphone as most important internet enabled device; higher level than for any other device



**Expectation that surveys should be accessible by smartphones**

## Smartphones especially important for younger people

Levels of smartphone ownership particularly high among younger people – 9 in 10 aged 16-24 and 25-34 owned a smartphone

More than half of 16-24 and 25-34 year olds cite a smartphone as their most important device (56%)

Same study showed that 16-24 year olds spent 287 minutes per day on their smartphones

Survey response rates usually lowest among 16-24 year olds



**Ongoing challenge of representing young people in surveys – important to remove barriers to participation**

# Evidence from UK social surveys

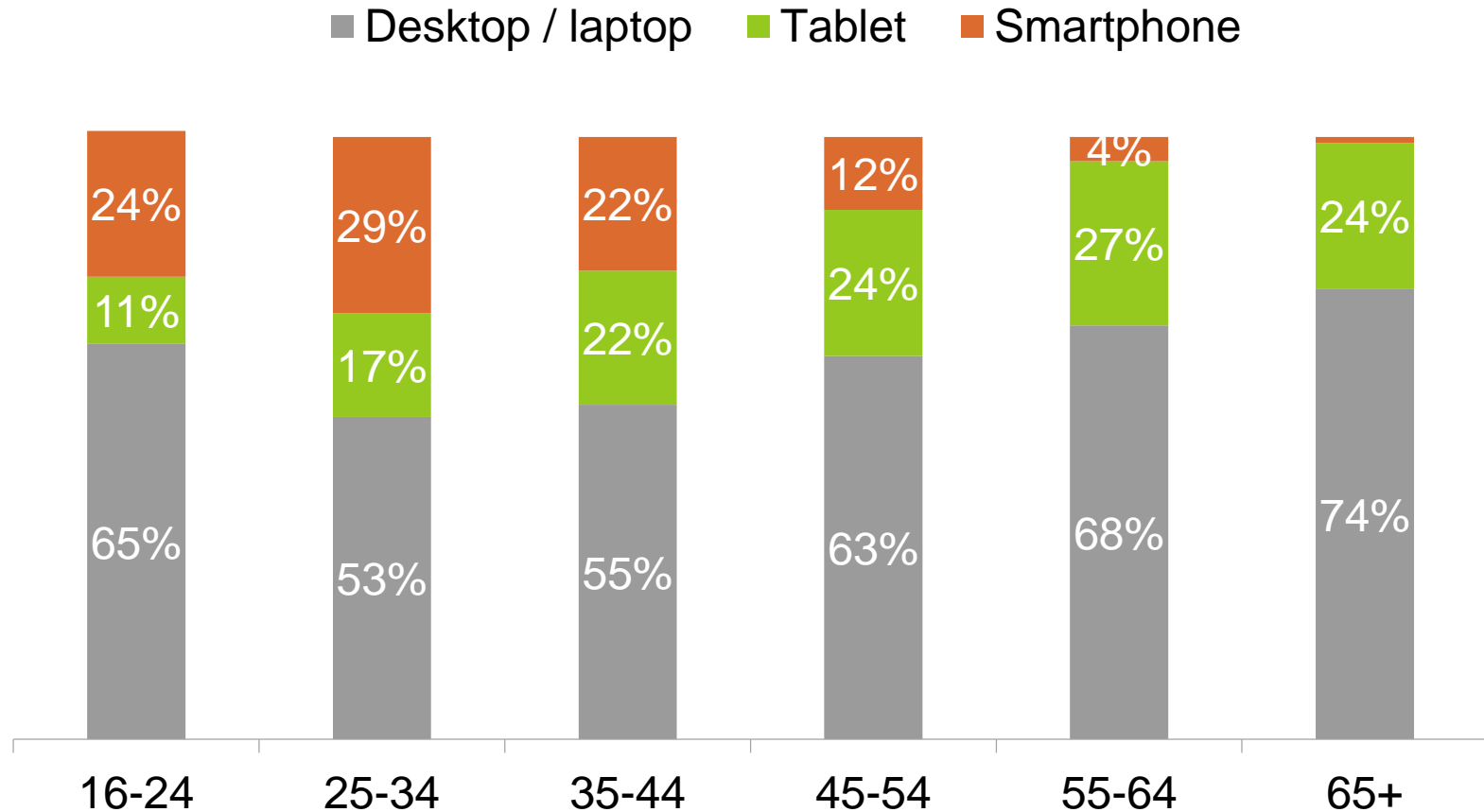
## Where we are...

- Now allow smartphones for most online surveys – though often still advise respondents to complete using a larger device
- Most software supports mobile optimisation – but different levels and types of optimisation
- ‘Mobile first’ approach for some new surveys; limited adaptation of existing survey content to date
- Usability testing across different devices increasingly common
- Ongoing experimental work to investigate a range of design issues; ongoing analysis of survey data across different devices to investigate impact on survey response and data quality
- Proportion who choose to complete on smartphones increasing...

## Proportions completing UK surveys on smartphones

Survey	Year	% using smartphone	Base	Contact method	Approx. interview length	Notes
Community Life	2014-15	3%	2,325	Letter	30 mins	Cross-sectional survey, address based sampling
Understanding Society Innovation Panel W8	2015	5%	776	Email/letter	45 mins	Longitudinal
Understanding Society Innovation Panel W9	2016	9%	1,103	Email/letter	45 mins	Longitudinal
Understanding Society W8	2016	14%	5,699	Email/letter	45 mins	Longitudinal, Interim data
Longitudinal Study of Young People in England 2 (Wave 4)	2016	22%	2,851	Email/letter	25 mins	Longitudinal, Interim data; 16-17 year olds
Wellcome Trust Science Education Tracker	2016	25%	4,081	Letter	25 mins	Cross-sectional, 14-18 year olds Named sample

## Particularly high levels of smartphone completions in younger age groups (from Understanding Society Wave 8)



# Usability testing, key issues and principles

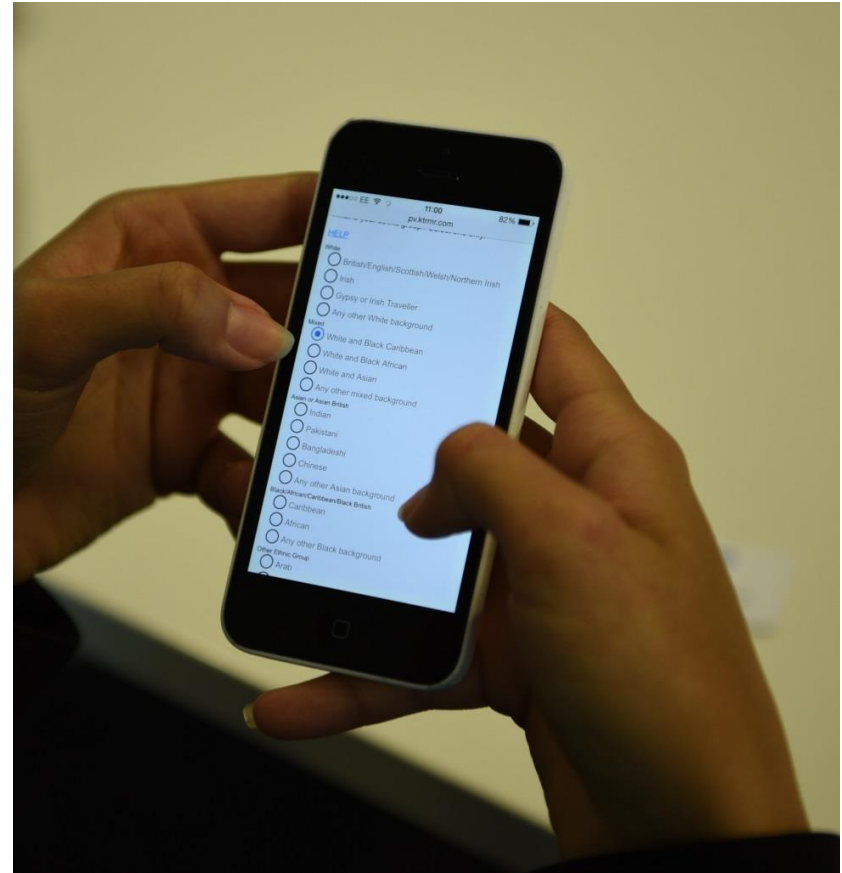
## Approach to usability testing

Conducted several rounds of usability testing of Understanding Society questionnaire, as well as for other surveys

Recruit respondents who use their smartphones for online activity on a daily basis

Respondents complete a version of the survey on their smartphone

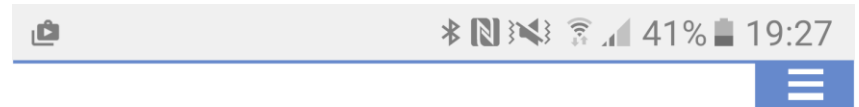
Asked to flag issues with the survey as they go through; researchers observe and probe around issues



## Key issues and principles – from usability testing and analysis to date

Most completed surveys with few issues – importance of device self-selection

Should carefully consider length of questions and response lists – but not just an issue for smartphones!



There are various models of smartphones these days. Is yours an Android, iPhone, Windows or some other type of phone?

- Android
- iPhone
- Windows
- Other type



## Key issues and principles – from usability testing and analysis to date

Most completed surveys with few issues – importance of device self-selection

Should carefully consider length of questions and response lists – but not just an issue for smartphones!

Important to make sure font size is large enough and consistent throughout; balance between text size and need to scroll / zoom

Response buttons and help buttons should be well spaced out (and easy to select – e.g. have used larger buttons for some surveys)

May be less detail provided at open questions – keep to a minimum?

Drop-down lists can render differently on different devices; also need to check other non-standard formats (e.g. trigrams, slider scales)

More likely to complete on move (though most still complete from home) – need to consider level of detail we ask for

Some demand for progress bars, or explicit option to save responses and complete later

Issues with traditional grids – ‘dynamic’ grids seem to work better but further testing/analysis needed

# Grids experiment

## Method

Four different formats compared:

- 'Traditional' grids
- 'Dynamic' grids
- Item by item paging
- Item by item scrolling

Two sets of questions asked – first on leisure and cultural activity; second on attitudes to courts and justice

Allocation to format unchanged between sets

Experiment run on Kantar TNS online omnibus – sample drawn from access panel – impacts on extent to which results can be generalised

Sample size of c. 1,200 per cell; 200-250 per cell using a smartphone or small tablet

Analysis ongoing – initial results presented today

## Traditional grid

How often do you...  
Please pick one option only for statement

	Never	Once or twice a year	More frequently than that	Don't know
Go to the cinema, theatre, concerts or other performances	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Go to exhibitions, libraries or other cultural or historical sites	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Attend a live sporting event	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Eat or drink out at a restaurant	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

## Dynamic grid

How often do you...  
Please pick one option only for statement

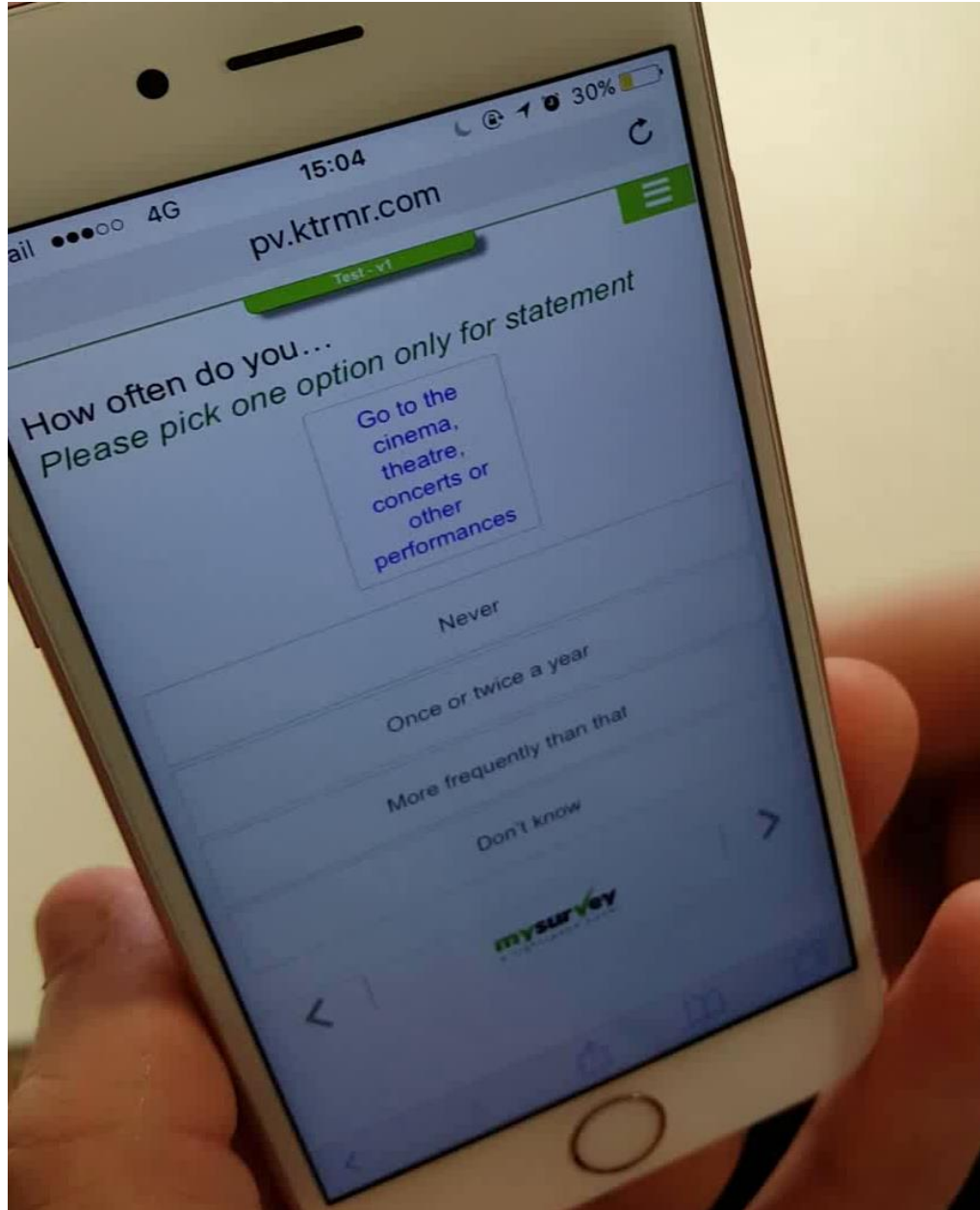
Go to the cinema, theatre, concerts or other performances

Never

Once or twice a year

More frequently than that

Don't know



## Item by item paging



How often do you go to the cinema, theatre, concerts or other performances?

*Please select one option only*

- Never
- Once or twice a year
- More frequently than that
- Don't know



## Item by item scrolling



How often do you...

Go to the cinema, theatre, concerts or other performances

- |                       |                       |                           |                       |
|-----------------------|-----------------------|---------------------------|-----------------------|
| Never                 | Once or twice a year  | More frequently than that | Don't know            |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> |

Go to exhibitions, libraries or other cultural or historical sites

- |                       |                       |                           |                       |
|-----------------------|-----------------------|---------------------------|-----------------------|
| Never                 | Once or twice a year  | More frequently than that | Don't know            |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> |

Attend a live sporting event

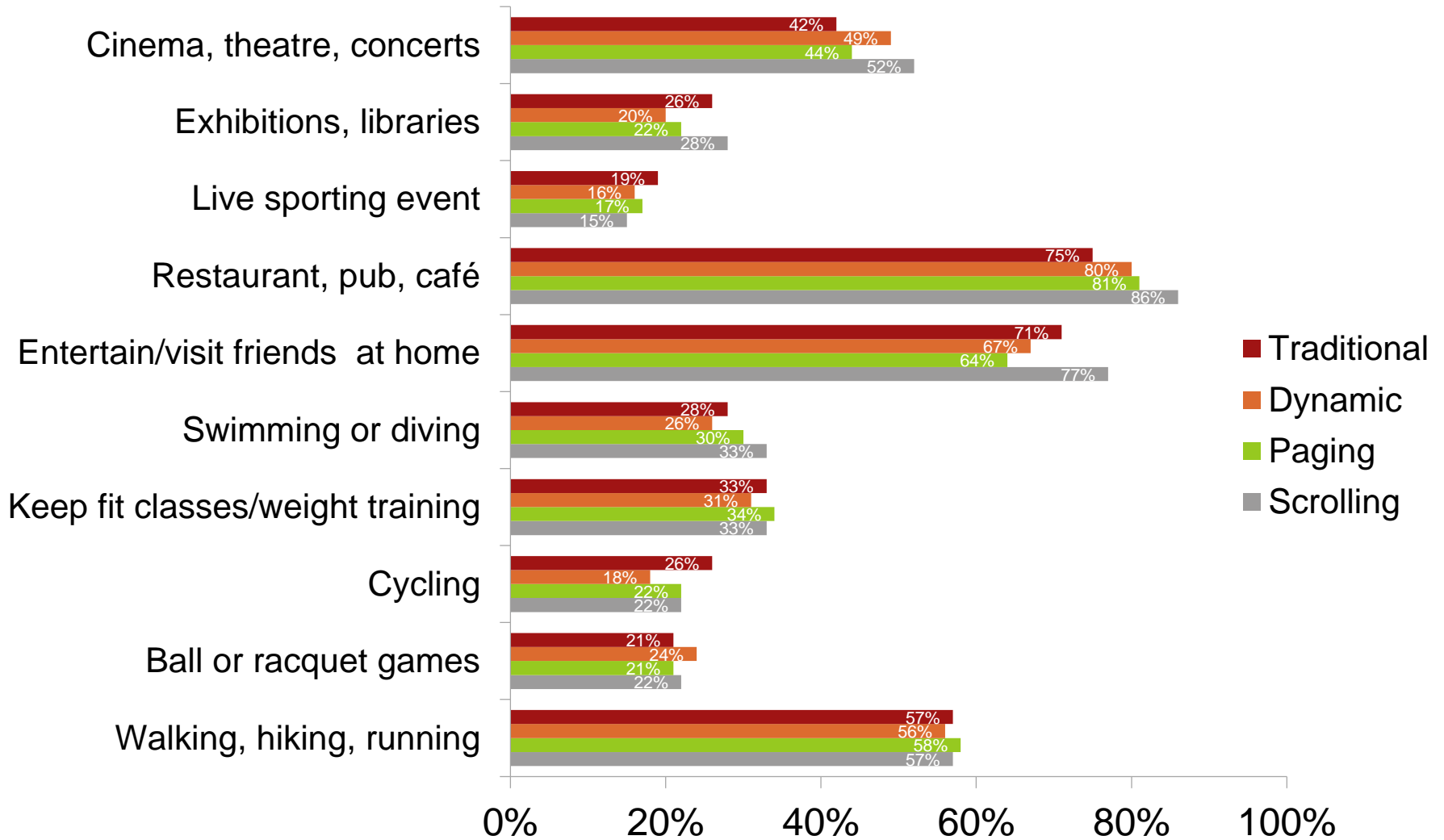
- |                       |                       |                           |                       |
|-----------------------|-----------------------|---------------------------|-----------------------|
| Never                 | Once or twice a year  | More frequently than that | Don't know            |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> |

Eat or drink out at a restaurant, pub or café

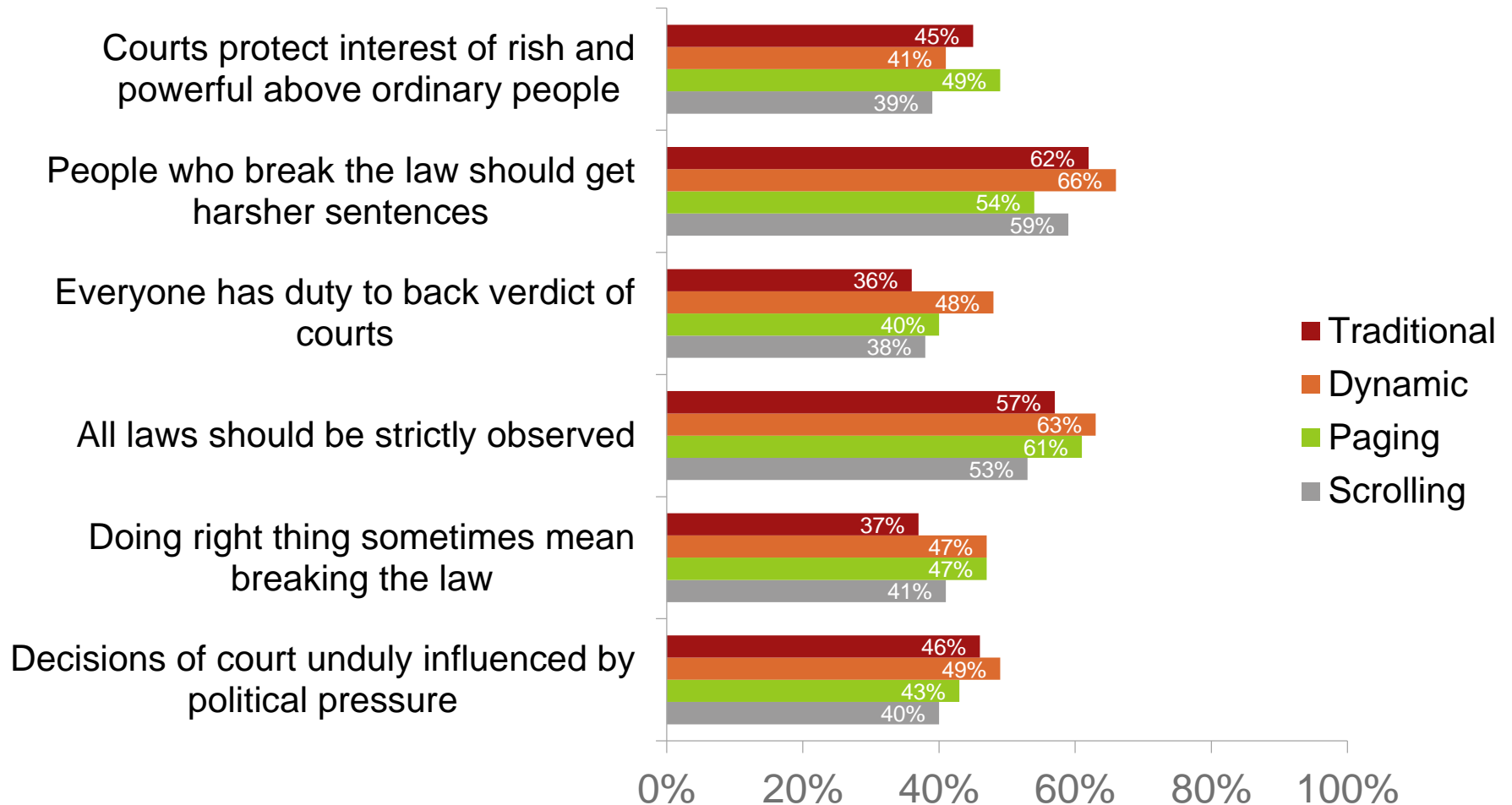
- |                       |                       |                           |                       |
|-----------------------|-----------------------|---------------------------|-----------------------|
| Never                 | Once or twice a year  | More frequently than that | Don't know            |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> |



# Q1 – proportions doing activities at least twice a year



## Q2 – agreement with statements on courts and justice



## Summary of emerging findings

Measure	Findings
Questionnaire length	<p>Item by item paging has longest completion times – difference greater for set 1</p> <p>Longer completion times for all formats on smartphones – bigger difference for traditional than dynamic grids</p>
'Don't know' rates	<p>For smartphones, rates a little higher for item by item paging, lower for dynamic grids – but differences not significant</p> <p>Typically higher DK rates for smartphones – dynamic grids for set 1 only exception</p>
Missing answers	<p>Low levels attempt to move on without selecting all answers for all formats; for smartphones, lower for dynamic grids versus traditional grids and item by item scrolling (difference significant)</p>
Flatlining	<p>Fairly low levels selecting same response to all items; for smartphone users slightly lower for dynamic and higher for traditional grids but differences not significant</p>

# Conclusions

## Conclusions

1

Growing demand to complete surveys by smartphone – all online surveys should now be designed with smartphones in mind

2

Work to date is encouraging – respondents can complete lengthy surveys on smartphones with few problems; issues to resolve not insurmountable

3

But – need for further analysis (data quality indicators, paradata) and experimentation (short vs. long questions, impact of device guidance)

4

Device usability testing valuable – recommend its inclusion as part of the development process for any new online survey

5

Different levels of ‘mobile optimisation’ – need to be clear what we mean when we describe ‘optimised’ surveys

6

Many issues discussed don’t just relate to smartphones – need to design clear, concise and well presented questions across devices and modes

# Thank you

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