THE HANDBOOK OF MOBILE MARKET RESEARCH
Tools and Techniques for Market Researchers
RAY POYNTER, NAVIN WILLIAMS & SUE YORKE
The pioneering book on the use of mobile technology in market research

‘With hugely improved science and technology available, how do responsible researchers and decision makers decide how and when to use new approaches like mobile? How do you separate the real from the hype, the wheat from the chaff? We all need to be able to make good decisions about our research methodologies, not be drawn into having to test every new fashion for ourselves.

The Handbook of Mobile Market Research cuts through this dilemma by presenting current thinking clearly, comprehensively and completely objectively. Armed with this knowledge you will be able to adopt mobile research methodologies appropriately, and with confidence, knowing what you’re gaining, and the potential downsides. If only keeping up with all new thinking was this easy!”

Phyllis Macfarlane, Global Training Director at GfK and former Chairman GfK NOP

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8 Designing and Conducting Mobile Surveys

INTRODUCTION

In order to provide a clear and relevant focus to this chapter the majority of the chapter looks at mobile surveys conducted via smartphones and tablets, utilizing web-based approaches and sample sourced from panels and communities. In particular, the context is:

- The research will be conducted via a mobile survey using a self-completion approach.
- The survey will be completed on a smartphone, tablet, or phablet.
- The survey will be online and browser-based.
- The survey will be created via a survey platform or software system, using the features of the platform, i.e. it will not be custom-built.
- The survey will be fielded via a customer list, or from an access panel, or via an insight community.

Other forms of recruitment and the use of apps are included where appropriate and in particular towards the end of the chapter. It should be noted that many of the design principles that apply to smartphone mobile research apply to other forms of mobile research.

This chapter draws heavily on the research-on-research reported at the end of the book for the advice presented.
ONLINE MOBILE SURVEYS

Online mobile surveys are surveys that are hosted on the web and accessed from mobile devices via browsers. This type of research can be mobile only, i.e. all the participants are using mobile devices, or they can be mixed-mode, with some participants using mobile devices and some accessing the survey from a PC. It is claimed that for about 20 to 30% of all online surveys participants are using mobile devices.

This section of the book focuses on online mobile surveys conducted via the main sample sources, with participants using smartphones and tablets. In many markets feature phones are still a major part of the online mobile survey picture, and in many markets the organized sample options are fewer.

PANELS, LISTS, AND COMMUNITIES

In many cases the sample for online mobile surveys comes from the same three sources as online surveys, panel companies, client lists, and online communities. This is the subject of a whole chapter later in the book.

Working with organized providers of sample reduces the need to focus on invitations, incentives, and participant support. However, most panels and communities are currently more online than mobile focused, which means care needs to be taken in countries where the relevant mobile population is larger than the online population. This is a topic covered in the Panels, Lists, and Communities chapter.

SURVEY PLATFORMS

A survey platform is a software system that allows the user to create surveys using a survey language or a graphical interface. The sorts of platforms focused on in this chapter will host the survey on the internet and participants use a browser on their mobile device to access it.
Key elements in using a survey platform for mobile online surveys are:

- **Creating the survey.** Many of the survey platforms operate as software as a service (SaaS), instead of having the software installed on the researcher’s computer.

- **Making the survey available on the internet,** often referred to as deploying.

- **Making the survey available to the participants,** for example by using email or SMS to send a link to the survey – this stage is often called fielding the study.

- **The survey platform stores the completed surveys and provides a range of management statistics,** for example completes, quotas, and top line results.

- **Once the study is completed,** the platform allows the researcher to export the data, as a file, for analysis and reporting. Some survey platforms have analysis and reporting options as part of the platform.

One important feature of some survey platforms is the ability to detect the sort of device a participant is using, and to ensure that the right version of the survey is presented to the participant. For example, if a participant is using an iPhone they will see a survey rendered for an iPhone and if they are using a PC they will see a survey suitable for a PC.

The advantage of using a survey platform is that it makes the survey creation process cost-effective, efficient, predictable, reliable, and it allows people with a limited knowledge of technology to create and deploy surveys. The majority of online mobile surveys are conducted via software platforms specializing in market research software.

The alternative to a standardized survey platform is to create custom-built surveys. The advantage of a custom-built solution is that the researcher does not have to fit their research design into what the standard systems offer. The disadvantages are that custom-built solutions are often slower to create and more expensive.
ONE STOP SOLUTIONS

Many of the sample providers, especially access panels, provide a one stop solution where they script the survey, provide the sample, host the survey, and deliver data and in some cases tables and analysis. Even when outsourcing the scripting of the survey, the researcher still needs to be aware of the design implications for mobile surveys.

DESIGNING FOR MOBILE

This section of the chapter looks at the core design issues for mobile surveys, in the context of the assumptions stated above. However, many of the points made in this section will be equally true of apps, custom-built solutions, and research via feature phones.

The key design issues are:

1. The length of the survey
2. Whether to optimize for mobile or for comparability
3. Fitting questions onto the screen
4. Fitting the style of the device
5. Fitting the available bandwidth
6. Data about the survey process.
THE LENGTH OF THE SURVEY

There is a broad consensus within the market research community that mobile surveys should be shorter than the length that has become the norm for online and telephone surveys. There is no definitive view on how long mobile surveys should be, but recommended ranges seem to vary from two minutes to about 12 minutes. However, there are some much longer surveys being conducted, both as unintentional mobile and even as mobile only studies. This issue is covered further in the Research-on-Research chapter.

Mobile surveys sometimes take longer

When working with mobile surveys, researchers need to consider that a mobile survey can take longer to complete than the same survey completed via a PC, especially when the survey is one designed for a PC, and rendered by the survey platform as a mobile study.

The data reported in the Research-on-Research chapter suggests that when a survey is designed for a PC, it often takes 1.5 times as long to complete on a smartphone and about 1.25 times as long on a tablet.

But mobile is not always longer

However, the comparison between the time taken to complete a survey on a PC and a phone potentially misses a key point about designing mobile surveys. A well-designed mobile study can be faster than a standard PC survey. In this case ‘well-designed’ means using approaches such as shorter, more intuitive questions, reducing the length of answer lists, and reducing the amount of text used for each of the answers.

Designing shorter surveys

Shorter surveys are felt to be good because they reduce satisficing (Chudoba 2011), reduce dropouts (Chudoba 2010), and provide a better experience to the research participant.

The approaches in Table 8.1 can make a contribution to shortening surveys.
OPTIMIZING FOR MOBILE OR FOR COMPARABILITY?

A mobile study has the opportunity to make the most of its benefits, being ‘in the moment’, on the move, able to include passive data, able to use new types of questions, and potentially including the capture of photos and video. However, against those opportunities there is sometimes pressure to make the results comparable with either historic data, or with data collected via PCs, if the study is being collected via both mobile device and PC.

Table 8.1 Approaches which can make a contribution to shortening surveys

<table>
<thead>
<tr>
<th>Approach</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a narrative flow for the survey.</td>
<td>Questionnaires should be like a conversation, the participant should be able to see where they go next, which reduces the cognitive load on the participant, and makes it more engaging.</td>
</tr>
<tr>
<td>Is every question really necessary?</td>
<td>Review the questionnaire against the research and business objectives, ensure that each question links to at least one of the business and research questions. Even if a question links to the objectives, consider if it is adding something unique or useful.</td>
</tr>
<tr>
<td>Shorten the questions.</td>
<td>Shortening questions often makes them less ambiguous and more intuitive. For example, instead of saying ‘Which of the following cars is your favourite? (Please select one)’, just ask ‘Favourite car?’ followed by the answer list. With a good narrative flow and the right question type and text the meaning should be clear.</td>
</tr>
<tr>
<td>Shorten the number of answers.</td>
<td>In many cases the number of answers relevant to a respondent is quite limited. If 80% of people are picking the same four options, perhaps, four options in an answer list are enough, supported with an ‘Other’ option or a method for the participant to see an extended list of options? A more sophisticated method of shortening answer lists is to tailor them to specific participants, for example, creating consideration lists based on earlier answers, meaning different participants see different lists.</td>
</tr>
<tr>
<td>Shorten the length of the answers.</td>
<td>Shorter answers make the survey easier to read, quicker to interpret, and help the study fit on a small screen, reducing scrolling.</td>
</tr>
<tr>
<td>Can you answer the question without asking it?</td>
<td>Access panels and insight communities store profile information and other information. If age, gender etc. can be read from the data source they do not need to be asked as questions.</td>
</tr>
<tr>
<td>Remove irrelevant visuals.</td>
<td>Irrelevant visuals can include things like: the logo of the survey platform and/or the client. Irrelevant visuals can slow down the load and make reading the screen slower.</td>
</tr>
<tr>
<td>Ensure that visual elements load quickly.</td>
<td>When images are needed, ensure that they load as quickly and easily as possible. Don’t send large images to a small screen</td>
</tr>
<tr>
<td>Consider ‘chunking’ the survey.</td>
<td>Chunking a survey means breaking it into segments and asking participants to complete the survey one segment at a time. This is also referred to as modularizing (OnDevice Research).</td>
</tr>
<tr>
<td>Use shorter, more frequent surveys.</td>
<td>This is a useful approach in general, and particularly true when the sample is from an insight community.</td>
</tr>
</tbody>
</table>
The owner of the research project has to make the final call about the risks of losing comparability against the benefits of optimizing the mobile survey.

FITTING QUESTIONS ONTO THE SCREEN

In most cases, mobile survey questions should fit on the screen without the participant having to scroll left and right, and only requiring intuitive up and down scrolling. The questions should be designed either for the smallest screen likely to be used, or the question should be rendered differently on different sized screens.

Many of the processes necessary to make a standard market research question fit on a small screen have to be dealt with by the software platform, but some are in the hands of the researcher.

Fitting to the screen – the researcher’s role

Key steps that the researcher can take to help the questionnaire fit on the screen include:

• Many of the shortening approaches mentioned above, e.g. shorter questions, shorter answers, and shorter answer lists.

• Choosing layouts, skins, designs that maximize the space for the questionnaire, and reduce branding, logos, footers etc.

• Checking what options the survey platform offers; sometimes, for example, there may be two or more ways of rendering a grid or a slider – choose the one that works best for the questionnaire being created.

• Think about asking questions in a different way. Could that 10-point scale just as easily be a 5-point scale? Could a grid question be asked as five separate questions?
Fitting to the screen – what the software can do

Many of the processes required to make a standard market research question fit on a small screen are handled by the software. In this case, the researcher may be able to influence this through their choice of survey platform, but if that is not an option, the researcher at least needs to know how the question will be rendered on different devices.

Figures 8.1, 8.2, and 8.3 show comparisons of how the same question might appear on different mobile devices.
FITTING THE STYLE OF THE DEVICE

As well as fitting on the screen, a mobile survey should fit the style of the device. If a survey is on an iPhone it should look and behave like an iPhone app behaves. Most of this is the responsibility of the software, but there are things the researcher should remember to do, such as asking the participant to ‘tap’ rather than ‘click’, and ‘pinch’ to ‘zoom’ in or out.

FITTING TO THE AVAILABLE BANDWIDTH

Bandwidth is the capacity of a network to transfer data. If your survey includes lots of downloads (for example high resolution images or videos) it might run very slowly or even time out for some participants. If the survey is going to be conducted in a market where high speed (e.g. 4G) mobile is the norm (such as Singapore or South Korea) then the survey can make greater use of uploads and downloads. However, in most markets (both developed and less developed) mobile coverage is variable and speeds are often slow.

For the researcher the main way of fitting a survey to the bandwidth is to minimize the number of images, the size of images, and the size of videos that are going to be downloaded as part of the survey. With some platforms the researcher can specify more than one image (for example a high and low resolution image) and the system will use the appropriate option.

If an app is being used, or if the survey is being custom built, then some more options are possible, such as downloading media files at the start of the survey, in the background, so they are ready when needed. And, if media uploads are being used, allowing them to be stored on the device until the internet and sufficient bandwidth are available.
DATA ABOUT THE SURVEY PROCESS

‘Paradata’ is a term used to describe data about the data collection process, and is used to help understand how a survey is working. For example, the survey platform can determine how long surveys are taking, what questions are causing the biggest delays, and where dropouts are occurring.

Mobile devices can provide a considerable amount of information, such as the model and make of the device and in some cases location. This sort of information is called ‘passive data’ and is covered in the Utilizing Passive Data chapter.

The researcher should determine what paradata can be collected, decide what should be collected, and ensure that permission to collect this data has been obtained. At a minimum, the researcher should normally seek to collect the screen size, the operating system, the browser, and the mobile device model and make.

The data about the data collection process can be used to improve the survey and it will enable the researcher to test for mode effects (described later in this chapter).

MANAGING MOBILE STUDIES

Having designed a mobile survey, the steps in managing the project are:

- Testing
- Launching
- Monitor and support
- Analysis.
Testing mobile surveys tends to take longer than testing surveys for most other modes, because there are usually more variations among mobile devices. Researchers should test the survey on the key types of devices they expect participants to use. If the survey doesn’t work correctly on some devices then some of the options to consider are:

- If the problem is caused by just one or two questions, or just one type of question, consider amending the survey to make it work on the devices being used in the study. For example, if slider questions do not work on some devices, with the survey platform being used, consider using scales or open-ended numeric questions.

- The problem questions can be asked in a different way for non-compliant questions, for example converting sliders to open-ended numeric questions.

- If the questions that do not work are not core questions, consider skipping them for users with non-compliant devices, for example if they relate to photo or video uploads.

- If the non-compliant devices are a small part of the target population, identify those devices, avoid inviting them, and if some do start the survey, close the survey in a way that is respectful of the participant.

It should be noted that asking questions in different ways to different participants, or screening out some devices, or skipping some questions for some participants can introduce biases.

Testing mobile surveys is broadly similar to testing online surveys, but with more variants. The better survey platforms have tools to indicate possible faults and to assess compatibility with different devices and operating systems. Many systems also have options to run thousands of test dummy interviews to check that all parts of the survey are being reached and that the questionnaire works at a superficial level.

One common approach to testing is to test the survey thoroughly on one platform and then test that it works and ‘looks right’ on the other platforms.
Mobile surveys can be tested by launching the survey on a range of devices and checking how they perform. However, many survey platforms have an emulator facility, which allows the survey to be tested on a PC. Different researchers have different views about how good emulators are, so the best advice is to try it and see, and check what your company’s view is.

One key best practice in mobile surveys is to use a soft launch. In a soft launch the researcher releases a small number of survey invitations until 20 to 50 completed surveys have been achieved. These completed interviews (and any partial interviews) should be checked to ensure that the survey appears to be working correctly, for example that there is no missing data and that the routing is working as intended.

LAUNCHING

If the mobile project is being handled via a panel company or community, the details of the launch, including the precise time of day of the launch may be out of the individual researcher’s control, but if client lists or other sources are being used then the researcher may have more input.

At the moment there is not a large amount of research-on-research about launching mobile online surveys, so most of the advice about using email invitation relates to online research in general. The advice tends to be to send emails at a time when people are likely to read them promptly, not at times of day when emails are going to get lost in inboxes. The research-on-research on mobiles does suggest that mobile users tend to respond faster than participants using a PC, which increases the desirability of sending emails at times of day that make it more likely they will be seen straight away.

TIP: A good test is for the researcher to go through the survey as a respondent, checking that the survey does what was intended. The best way of doing this is with a copy of the questionnaire in one hand (or on a separate screen) and to repeatedly go through the questionnaire until every element of the questionnaire has been seen and checked.
Sending emails during the late morning, afternoon, and early evening are all good options, if the email is expected to be read on a mobile. The weekends can be a good time, but avoiding unsuitable times can be important. In a religious country, sending invitations at a time when people are likely to be worshipping is not great; if the research is targeting sports fans, the emails should not be sent when people are going to be involved in events.

If invitations are going to be sent via SMS, then the researcher needs to avoid sending invitations at times of day that are going annoy participants. In many cases this means sending the invitations between 9am and 8pm, during the week, and something like 11am to 8pm at the weekends. However, in countries where there are time differences, such as the USA and Australia, care needs to be taken to either narrow the time bands used, or to actually know where the participant is and factor this into the timing.

MONITOR AND SUPPORT

As well as testing a survey before it is launched, a survey needs to offer support to participants during fieldwork, particularly if the participants are not familiar with the type of survey being used, for example if a project has moved from online to mobile. Good practice ideas for support include:

- **Telling participants what devices the survey supports at the invitation stage, telling the participant if they will need to download anything, play sound, and how long the survey is likely to take.**
- **Telling the participant how they can access support (ideally both an email address and a telephone number).**
- **Automatically detecting the hardware being used by the participant and letting them know if there is a problem.**
- **Providing support information and help from within the survey itself; many platforms support this on an individual question level.**
- **Providing an open-ended question at the end of the survey for participants to leave comments and ensuring that open-ended responses are monitored.**
The progress of the fieldwork should be monitored from the initial soft launch until the close of the study. Most survey platforms have a variety of monitoring reports and dashboards. Key items to monitor include:

- How quickly are participants responding?
- Dropout rates?
- Are some devices causing more problems than others?
- If people are dropping out, what questions are they dropping out on?
- The contents of open-ends to see if participants are highlighting problems?
- Quotas and top line result.
- The use of ‘Other’, ‘Don’t Know’, and ‘None of these’, and unanswered questions.

**ANALYSIS**

Most aspects of analyzing data from mobile are the same as data from other modes, but there are some important specific considerations, including:

- Looking for differences between the data from one type of device and another, for example between tablets and smartphones, or smartphones and feature phones, or even between iPhone and Android.

- If passive data, such as GPS location, has been collected this needs to be combined with the survey data for the analysis.

- If multimedia has been collected (for example photos and videos) then this needs to be analyzed, which is often a much more time consuming process than analyzing the survey responses.
CONVERTING STUDIES TO MOBILE

Converting studies to mobile, as opposed to designing a new mobile study, tends to take two forms. The first case relates to ongoing projects, such as tracking studies. The second case is when a previously fielded survey is re-used, either in its entirety or as the basis of a new survey. Many product and concept tests fall into this second category.

This section of the chapter looks at the issues that confront researchers when converting a study from other modes to mobile. However, the first question that should be addressed is whether a conversion is the right approach, or whether a fresh start, maximizing the benefits of the new mode, is the best option. A change from one mode to another can often be a good opportunity to re-think a project, to trim out sections no longer necessary, and optimize for the new mode.

This section looks at three common conversions:

- From face-to-face
- From CATI
- From online via PCs.

SAMPLE AND MODE EFFECTS

When moving an existing survey from one mode to another (for example from face-to-face to mobile) there are two major factors that need to be taken into account:

1. Mode effects. For example, a participant may answer the same question one way when asked by an interviewer but in a different way when the survey is self-administered, with no interviewer present.
2. Sample effects. One mode may attract different types of participants than another, creating different results. For example, a central location, face-to-face study will often find it easy to recruit people whose lives are less busy and who shop in person, whilst a mobile study might increase the proportion of busy people, including online shoppers, but it may be less attractive to the over-sixties.

Mode effects and sample effects do not mean the information is necessarily better or worse, just that it is different. For example, two reasons to use mobile surveys are to broaden the range of people who can be reached (a sample effect), and to interview people ‘in the moment’, when the experience is fresh (a mode effect).

Differences between one mode and another do not imply one is better than the other, but they do mean that it can be harder to compare the results, and differences can cause problems for the end-clients, for example if benchmarks or norms are in place.

Whenever a new mode is used, the researcher should check for mode and sample effects, and this is true when mobile surveys are being used in replacement for another mode (or alongside another mode).

The process of testing and dealing with mode and sample effects is covered in market research methodology text books, so the description here is simply a quick note of the data that needs to be collected and the elements of looking for these effects:

1. The individual data records need to have their mode attached. If some of the data was collected on feature phones and some on smartphones, this needs to be recorded.

2. Look for sample effects first. In this example, the researcher might look to see if the demographics of the feature phone owners were different to the smartphone owners. If there are differences, then there are sample effects.

3. Control for sample differences and see if there are differences by mode.
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3. Control for sample differences and see if there are differences by mode.
A second major mode effect can arise because questions often appear differently in a face-to-face survey than in a mobile survey. In a paper-based, face-to-face survey, a show card may contain a large number of items, for example several photos. On a mobile device the participant tends to look at items one at a time, which sometimes results in changes in the data. For example, in prompted recall, showing items one at a time or in small groupings tends to elicit higher levels of recall than showing long lists (Witt 2000).

Another potential mode effect is the environment where the survey is conducted. In a face-to-face survey the participant is not doing anything else, they are typically at home or at a central location. A participant taking part in a mobile survey might be in a retail outlet, at work, on a bus, in bed, watching TV, etc. One of the perceived benefits of mobile studies is that they can catch people ‘in the moment’, for example when buying or using a product. However, a benefit is also a difference, and this difference is a potentially an important mode effect. Although this issue remains a concern, there is no research-on-research which suggests it is a major issue.

**Sample effects converting face-to-face**

Sample effects refer to different sorts of people being researched. One of the perceived advantages of mobile market research is that it can reach people that more traditional market research modes do not reach. With face-to-face surveys, the interviews can only take place when the interviewer and participant can be brought together in the same place. This tends to be between 9am and 8pm, in participants’ homes or in central locations, in relatively densely populated areas.

Mobile studies are not limited to just those people who are in certain locations or to those free at specific times of day. However, mobile studies are only going to reach people who have the right type of device and who are willing to take part in a survey via their mobile device.

The type of people who can be reached by a mobile survey will depend on the country, the target group, and the type of mobile study being run. If the study is online and only available to smartphone owners the sample will be different from one where web-enabled feature phones are included, which in turn will be different from one based on SMS, where any type of phone can be used.
CONVERTING FROM CATI

Computer Aided Telephone Interviewing (CATI) combines interviewers and a centralized computer system for the questionnaire. Amongst the common reasons for moving from CATI to mobile surveys are: to reduce costs and to access the specific benefits of mobile, such as ‘in the moment’ and passive data.

Mode effects

As is the case when converting from face-to-face interviews to mobile self-completion, the main mode effect is the removal of the interviewer. This reduces interviewer-related bias, but it also removes the ability of the interviewer to help and motivate participants and to help identify problems with the survey.

In addition, participants may also interpret questions differently when they see them displayed on a screen as compared to hearing them read over the telephone.

Sample effects

In many markets CATI can reach a much wider range of the population than can be reached with a mobile survey, particularly a mobile survey relying on the internet. This is partly to do with the incidence of internet-enabled phones, but it also reflects differences in sampling. Mobile online surveys will often use panels, lists, and communities as their sample source, all of which are a subset of the population. CATI can use RDD which gives it a much wider sample source.

In these situations, a shift from CATI to mobile surveys can create differences in sample which can create differences in the results.
CONVERTING FROM ONLINE SURVEYS DESIGNED FOR PCS

From a global perspective, clients spend more money on online surveys than any other data collection mode. However, in terms of the number of interviews, and in many countries, CATI or face-to-face is the dominant method, with online dominating in the more developed of markets, such as Japan, the USA, Germany, and Australia.

The key reasons for converting an online survey into a mobile survey are:

1. To create device agnostic research that can be completed on both mobiles and PCs.
2. To widen the range of people who can be reached, especially in countries where online internet access via PCs is substantially less than via mobile devices.
3. To take advantage of the benefits of specifically mobile research, including ‘in the moment’ research, capturing multimedia, and utilizing passive data.

Mode effects

As noted earlier, a key consideration when moving from online surveys designed for PCs to mobile devices is the reduction in the size of the screen (sometimes referred to as ‘screen real estate’), especially when the mobile device is a phone. When dealing with feature phones, the difference in how questions appear on a PC and the mobile device is larger, and with tablets the difference is less.

Another potential mode effect may arise because of the change in context/location in where surveys are taken. For example, taking part in a survey in a coffee bar or on a crowded train might produce differences compared with sitting at a PC (which usually means at home or in the office).

The Research-on-Research chapter includes a number of projects that have specifically looked for mode effects when comparing online and mobile. In general, differences appear to be few, but some important effects have been shown. For example, multiselect grids appear to produce higher scores on mobile than on PC. More information is available in that chapter.
Sample effects

Most online surveys are conducted with people recruited from lists, for example, online access panels, client lists, or online communities. This tends to be the same for most mobile surveys, although at present most of the lists for mobile research are not as large or as well organized.

However, there are still likely to be sample effects when moving from online via PC to mobile. One of the reasons for using mobile surveys is to reach people on the move and to reach people who have been ‘turned off’ conventional research approaches – both of which imply sample differences.

In markets where more people are accessing the internet from mobile devices than from PCs, and more generally as mobile sample suppliers develop their business, it is likely the sample differences between PC online and mobile will grow, with mobile often being the broader sample.

MIXED-MODE SURVEYS

Mixed-mode, or hybrid, surveys are surveys where the researcher intends for some participants to answer the survey using one mode, such as in a face-to-face interview, and for others to use another mode, such as a smartphone. Mixed-mode can mean as few as two modes, but it can also refer to studies utilizing many modes. The term ‘mixed-mode’ can also be used for studies where participants use one mode during one stage of the survey and another mode at another stage, for example a CATI interview could be followed by a mobile survey.

Mixed-mode is the subject of a whole chapter later in the book, so this section will focus on the core items that relate to designing and managing mobile surveys.
OPTIMIZING THE PLATFORMS OR MINIMIZING THE DIFFERENCES

One key choice that needs to be made when designing for mixed-mode is whether to optimize the survey for each mode or to minimize the differences across all modes. A similar decision was covered earlier in the chapter when looking at transitioning questionnaires from one mode to another. There is no right or wrong answer to the choice of optimizing for mobile or minimizing differences. The researcher must choose the best solution for the specific research being conducted, aware that both approaches have potential shortcomings.

Optimizing for specific platforms

If a mixed-mode study is to be optimized for specific platforms, the tablet version might utilize a larger screen. For example, the respondent might be shown a list of all the brands on one screen, perhaps with logos as well as names shown. The smartphone version might simplify the look, and show the brands (with or without logos) in groups of say five, over several screens. The feature phone version might show the brands one at a time, without a logo.

In this simple example, the use of logos and text on the tablet might increase the number of brands recalled, but showing them in a larger group might reduce the number recalled. The feature phone's lack of logos might reduce recall, but asking the brands one at a time might increase the recall.

In an extreme case of tailoring to the platform, some questions might be skipped altogether for some modes. For example, an online study designed to be conducted via a PC might take 30 minutes and include interactive graphics. The mobile version might comprise only the most critical questions, avoid interactive graphics, and take only eight minutes to complete.

When surveys are optimized for different devices, the researcher should analyze the data carefully to determine if there are differences that appear to be caused by mode effects (the impact of the way the questions are asked) or sample effects (different modes can attract different people). If there are differences, the researcher should attempt to remove them or report the data separately.
Minimizing the differences

If the researcher decides to minimize the differences between the modes then the first step is to find out which mode is the most limited. This approach is sometimes referred to as ‘the lowest common denominator’. If smartphones are going to be used, then this will require the online survey to be simplified to ensure it looks and behaves in the same way across platforms. If feature phones are going to be used, then a PC survey will have to be considerably restrained, to make the experience broadly comparable.

The downside of minimizing the differences is that the simplified online survey may remove features that might produce better data. For example, in a choice task using four or more ‘cards’ on the screen may give the best results, but such a design is not possible if the research is designed for a smartphone. Choice tasks based on two options per task may work on all the devices, but it may produce data that is less descriptive than the four choice option.

‘UNINTENTIONAL’ MOBILE RESEARCH

As reported elsewhere in this book, a growing number of participants in online surveys are choosing to complete surveys on mobile devices, which, in effect, turns many (perhaps most) online surveys into mixed-mode surveys.

Researchers conducting online surveys should either accommodate the mobile participant or seek to exclude them. The trend in most research is towards platform agnostic research, leaving the choice to the participants. However, for some mobile projects there are good reasons to exclude PCs, for example when using location-based ‘in the moment’ type approaches.
GOOD PRACTICES WITH RESTRICTING ACCESS TO AN ONLINE SURVEY

If the researcher determines that some devices are not suitable for a particular survey then the following advice should be followed:

1. Tell the participant at the invitation stage (and repeat at the start of the survey) the limitations in terms of what devices can be used. For example, whether it is smartphone only, or PC and tablet only, or suitable for any device capable of connecting to and browsing the internet.

2. Use software that detects the device being used for the survey and which checks that it meets the minimum criteria for the study.

3. Do not describe the participant’s device as unsuitable for the survey; describe the survey as unsuitable for their device.

4. Consider sending the invitations via SMS instead of email if the survey is intended for phones.

SURVEYS AND APPS

There are a variety of reasons to use an app for surveys, instead of an online/browser-based mobile study, including:

- Being able to trigger the survey in more ways, including geofencing, timed alerts, and signals from the researcher.

- Being able to access and utilize passive data.

- Not having to rely on the internet being available.

The case for and against apps is considered more fully in the chapter entitled The Technology of Mobile Market Research, along with more material on working with apps.
Designing for Mobile

The agency, MMR, needed to research out of home breakfast habits in the UK, and wanted to conduct it in the moment, which meant mobile. Key items in their implementation were:

- An online survey was used to profile the participants on key behavioural and attitudinal measures.

- An app was used for the ‘in the moment’ research, to ensure that the data collection would be always on and respond quickly.

- The participants kept a breakfast diary for seven days, using the app at meal time.

- By providing extensive support for participants, 53% of those eligible downloaded the app and 83% of these completed all seven tasks.

- Initiatives included phased incentives (making it worthwhile to do all seven tasks) and push notifications each morning to remind participants.

The survey was kept very short, asking key details only, such as where they were, who they were with, and what they ate.

MMR utilized the benefits of mobile by asking participants to take a photo of their meal, ensuring they knew exactly what people had chosen and not what they claimed, and also the ability it gives for people to complete the survey in the moment, maximizing data quality and providing the ability for people to accurately convey how they actually felt at that specific point in time.
Working with their supplier, MobileMeasure, the data entry was modified to make it intuitive and fast for mobile users, for example using simple taps instead of the drag and drop used in their online version. The bullseye data entry shown in Figure 8.4, based on using phones in landscape mode, simply requires the participant to tap once on the screen, at which point the next statement is displayed.

![Bullseye data entry](image-url)

*Figure 8.4* Bullseye data entry (Note actual screen is in colour)

MMR’s CEO Mat Lintern is clear that when creating a mobile solution the benefits of the new mode should be maximized and makes the following recommendation: ‘When mobilising an existing system redesign it from a mobile user’s perspective and then that becomes the new standard.’
Surveys conducted via apps tend to be organized in one of two ways:

1. Each survey uses a separate app.
2. Using a survey app that participants (often members of panels or communities) have already downloaded.

The second option, when available, is the easier and usually cheaper option. The first option typically requires more effort in recruitment and support, but if the research has special requirements, or in situations where no preloaded app is available, it may be the only option.

Most of the issues discussed in the earlier parts of this chapter, for example fitting the study to the screen and operating system, and the tension between optimizing and compatibility, are issues that need addressing for surveys delivered via apps. However, with apps there are often more choices, which means there are more things that need to be decided.

Researchers should consider the points when deciding which survey app to use:

1. Should the survey be available when the internet is not available?
2. Should the survey run when initiated by the participant, or should it be triggered in other ways (e.g. signals from researcher, timer, or location)?
3. What, if any, passive data should be collected?
4. How is the data going to be transmitted back to the researcher?

TIP: Replicating designs from online directly to mobile would affect survey completion times and user experience adversely. Redesigning existing question types to suit mobile reduce survey completion times and improve user experience.
USING THIRD-PARTY APPS

Working with apps can be more complex than working with online browser-based surveys. Creating a survey via an app tends to mean being closer to the workings of devices and operating systems. Because of the potential complexity, some agencies prefer to work with mobile market research app specialists when conducting this sort of research, especially if they are producing customized or one off solutions.

Access panels which have their own app already installed on their members’ mobile devices are another way of outsourcing some of the technical issues associated with using an app.

WHICH IS BEST, APP OR BROWSER?

There is no general right answer to this question. In many cases, if the research is possible with a browser-based approach, then that will be the cheapest, quickest, and most efficient way of conducting the study. However, that may change as more panels and communities build up collections of members who have already downloaded a survey app, who are already incentivized to use it, and are familiar with using it.

The most common reason to use an app at the moment is when it provides a better solution than a browser-based solution, or where there isn’t a browser-based solution. Most mCAPI projects where interviewers use mobile devices to collect face-to-face interviews use apps. Most projects using location information, such as GPS or Bluetooth beacons, use apps. Most diary or ethnographic type projects where participants have to enter data repeatedly, irrespective of whether the internet is available, use apps.
SURVEYS AND FEATURE PHONES

Adding feature phones to the range of mobile devices a survey supports increases the complexity and the probability that the survey will look broadly similar across all devices is reduced. There are three ways of conducting surveys via feature phones:

1. Surveys with web-enabled feature phones, using the internet.
2. Surveys via programs downloaded onto feature phones.
3. Survey using most types of phones, not just the web-enabled ones.

Downloading programs onto feature phones is a specialist area and beyond the scope of an introductory book like this. Researchers looking to undertake this sort of research should approach a specialist agency, one with both technical and market research experience.

Surveys with feature phones that are not connected to the web are again a specialist field, utilizing SMS, sometimes USSD, and possibly IVR (interactive voice response). This approach is also beyond the scope of this book, but some of the issues are discussed in the chapter on International Mobile Research. Many of the projects that use feature phone friendly approaches for their data collection also use innovative methods of incentivizing participants, such as paying them with airtime, automatically. Researchers wanting to utilize these approaches should seek experienced agencies to partner with.

In the less developed markets, online mobile surveys are often completed by participants using web-enabled feature phones (rather than smartphones), and this is expected to be the case for several more years. There are a number of companies who specialize in this sector and many of the survey platforms are capable of rendering some or all of their question types on web-enabled feature phones.
Researchers planning to use web-enabled feature phones to allow them to conduct mobile research in an international study should keep two key factors in mind:

1. If some participants are completing the study on smartphones and some on a feature phones, the questionnaire can look quite different, which may introduce bias.

2. Different countries have different rules and expectations about things like incentives, so working with partners who know each market is vital, where knowing a market includes understanding the technology and the research environment.

OTHER WAYS TO LAUNCH/INITIATE SURVEYS

Most of this chapter has focused on surveys running in conjunction with access panels, client lists, and insight communities; and in the context of a standard survey platform. However, there are a variety of other ways of sourcing sample and of initiating surveys, and these other routes require additional steps during the design and management of the survey.

Additional ways of launching/initiating surveys include:

1. By publicizing the survey URL or QR code. This can be via a wide range of routes, such as: advertising, on products, on shopping or till receipts, in mailings, websites, and social media.

2. Through popups on mobile sites, or simply invitations from mobile sites.

3. As part of online river sampling such as RIWI.

4. Via SMS invitations, in cases where mobile telephone numbers are known.

5. From embedded apps, either embedded on the phone, or as part of another app (for example as part of a game).

6. As part of a geofencing marketing campaign, where shoppers have downloaded an app to help them shop or to collect coupons, e.g. ShopKick.

7. Via conventional market research recruitment channels, such as telephone, face-to-face, postal etc.
SURVEY DESIGN

When participants are not recruited from mainstream research channels, i.e. they are not from a panel or a research community, they are usually less familiar with the look and style of online surveys. This means the survey design should be welcoming, engaging, and intuitive. Most researchers believe that participants recruited from these non-standard routes are even more sensitive than regular participants to survey length, making the case for shorter surveys even stronger.

CUSTOM-BUILT SOLUTIONS

Most breakthroughs in mobile market research have come from custom-built solutions. The term ‘custom-built’ covers a wide range of situations. At one extreme it means adding some custom code to an existing product or platform, at the other end it means creating a solution from scratch. In general, custom-built solutions cost more, take longer, and may be ‘riskier’ (riskier than a platform solution that may have been used tens of thousands of times before your project uses it).

The benefits of custom-built solutions are that they can access more of the features of the mobile device and they do not constrain the research to fit what the platforms offer.

With custom-built solutions, many of the design principles discussed in this chapter still apply, keeping the survey short and intuitive, making a decision on the balance between mobile optimization and comparability with other modes, and thinking about the sorts of mobile devices that the participants are likely to use.

When working with designers and software engineers it is a good idea to agree three key conditions:

1. The research tool should comply with market research guidelines. For example, any data collected must be in the context of informed consent. Software engineers not familiar with the research industry may find it natural to collect background information, perhaps to enable them to optimize their design.

2. Check that the survey includes market research essentials. These essentials include: adding an ‘other’ or ‘none of these’ to response lists, the ability to randomize answer lists, and the ability to branch depending on the answers to earlier questions. Your app designer may not know about market research, so they may not factor these features in.

3. Ensure that the data that is produced is in a standard market research format or can easily be exported in a standard format, for example something that can be read into a spreadsheet or statistical software package.
SUMMARY

Mobile market research is still a developing and evolving field, which means that there are few settled and agreed guidelines about how mobile surveys should be designed and managed. Whilst many organizations talk about ‘best practices’, these are typically a set of rules of thumb which appear to work at the moment – but they should not be taken as definitive guides. Indeed, even the notes in this chapter reflect a moment in time, and should be treated more as a set of suggestions and issues to consider, rather than as a prescription for how mobile surveys must be done.

The general themes that do appear to be broadly agreed, in the area of mobile surveys, when giving advice to people new to the area are:

- Be clear about why mobile surveys are being used. Is it for speed, cost, being ‘in the moment’, to capture passive data, to reach a wider audience?
- Is the study going to be mobile only, or part of a platform agnostic, mixed-mode solution?
- Is the research going to be browser-based or app-based?
- Mobile surveys should be intuitive, engaging, and short.
- A conscious decision should be made about the balance between mobile optimization and maximizing comparability – comparability with other modes and comparability with historical benchmarks.
- Changing mode to mobile surveys is likely to make some difference to the results; this should be flagged as a possibility at the proposal stage and looked for at the analysis stage.
- Working with a standard survey platform is likely to be quicker, easier, and more reliable than a custom-built solution. Working with custom-built solutions allows more access to the functions of a mobile phone and avoids the need to fit the research to the constraints of the software solution.
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