# Using Smartphones in Multi-Modal Qualitative Research

## Worksheet

Part of the resource: <https://www.ncrm.ac.uk/resources/online/all/?id=20856>

Key points to consider in ethics and funding applications involving smartphones are outlined below.

## Feasibility and Efficiency

* Justify smartphones as a practical, inclusive and acceptable method - for example, lower cost, convenience, user-friendliness, unobtrusiveness and swift data generation, transfer and access;
* Demonstrate value for money - for example, reducing travel and transcription costs, or in terms of using existing devices and freely available apps (e.g. WhatsApp);
* Cite existing research with similar methods demonstrating considerable research output being generating over a relatively short period of time and/or with a relatively small sample;
* Detail piloting (i.e. feature testing, debugging) and participant training and onboarding;
* During onboarding, check participants truly understand the value, purpose and risks of the mobile methods engaged. This will likely increase their retention and satisfaction;
* Consider connectivity issues (Does the app work offline?) and plan accordingly (e.g. supplying data packages);
* Considering the pros and cons, justify the decision to either let participants use their own mobile devices or lend them the devices for use during the study.

## Data Privacy and Management

* Specify all different types of data to be collected (e.g. textual, visual, audio, geospatial), together with a granular data management plan for each data type;
* Adhere to the GDPR principle of data minimisation - avoid generating data that are not essential to answering the set research questions; and avoid keeping data for longer than necessary, especially personal data. Become familiar with appropriate techniques for data minimisation and anonymisation (e.g. metadata stripping tools to remove geolocation or personal data from image files);
* Ensure mobile devices are end-to-end encrypted;
* Specify procedures for de-identification (e.g. face blurring) and secure storage, paying particular attention to sensitive multi-media data (e.g. image and video data);
* If using a third-party app, review the provider’s data storage and security policies and ensure relevant agreements are in place (e.g. Data Processing Agreement).

## Data Collection

* Prepare data collection protocols for participants that specify parameters such as data types, amount, frequency and format (e.g. lighting, framing, resolution, file type);
* Be aware that while highly detailed and rigid protocols offer clarity and comparability, they can limit participants’ flexibility and ability to express themselves authentically;
* Prepare a contingency plan (e.g. issue reminders if a participant has not logged an entry for several days).

## Permissions and Participant Control

* Clarify how participants will exercise and retain agency over their data during the study (e.g., ability to edit their entries) and after study completion (e.g., retaining copyright to creative works such as images). Explain to participants how to request the deletion of data logged in error;
* Give participants copies of their data, if requested;
* Discuss setting restrictions on recording other people’s faces. Consider obtaining consent from non-participants (e.g. bystanders). Ask participants to be respectful of other people’s privacy and safety.

## Data Analysis and Representation

* Specify whether data analysis will be manual or automated (e.g. AI-assisted textual or visual analysis, or built-in sentiment analysis capabilities);
* Mitigate the risk of misrepresentation inherent to remote and visual methods: How will you ensure the findings accurately reflect participants’ intended meanings and circumstances? Some useful strategies are (a) data triangulation; (b) participant feedback; and (c) photo elicitation.

## Dissemination and Impact

* Highlight the potential of multi-modal smartphone designs to generate authentic, evocative and actionable data and insights. These can be disseminated to the wider public and to stakeholders digitally and at in-person events (e.g. exhibitions, community conversations, policy dialogues).

## Other Considerations

* Budget in participant incentives that are proportionate to the duration and intensity (time, effort, cognitive load) involved in the study;
* Build in an ethical and sensible incentive structure to optimise engagement. For example, incentives can be provided per week or for each study phase.

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