



PRACTICAL GUIDE

Using qualitative methods to study digital divides in specific groups



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GOBIERNO
DE ESPAÑA

MINISTERIO
PARA LA TRANSFORMACIÓN DIGITAL
Y DE LA FUNCIÓN PÚBLICA

BOLETÍN DE ESTADOS
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About Digital Future Society

Digital Future Society is a non-profit transnational initiative that engages policymakers, civic society organisations, academic experts and entrepreneurs from around the world to explore, experiment and explain how technologies can be designed, used and governed in ways that create the conditions for a more inclusive and equitable society.

Our aim is to help policymakers identify, understand and prioritise key challenges and opportunities now and in the next ten years in the areas of public innovation, digital trust and equitable growth.



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Published

July 2024

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PREFACE

0

- Glossary
- Introduction



Glossary

C

Co-design: a collaborative process of creatively building on others' ideas. This approach enables complex social challenges to be addressed collectively, involving all concerned parties.

D

Digital competence: an ability encompassing the safe, healthy, sustainable, critical and responsible use of digital technologies for learning, work and participation in society, and interaction with these technologies (Educagob n.d.).

Digital divides: disparities in access to and use and knowledge of digital technologies. Disparities may be based on socioeconomic, geographic, educational or demographic factors (Digital Future Society 2020). As it refers to multiple aspects or instances of the digital divide across different contexts and groups, the term is used in the plural in this guide.



Digital rights: set of rights that constitutes an extension of those established in the United Nations' Universal Declaration of Human Rights. They promote a model of digital transformation that seeks to reinforce the human dimension (De la Quadra-Salcedo 2021).

F

Focus group: a group comprising a small number of people, selected according to a set of predetermined criteria (such as place of residence, age, socioeconomic level and origin) to discuss a certain topic.

I

Information and communication technologies (ICT): a general term encompassing any communication device or application such as mobile phones, the internet or satellite systems.

M

Municipal digital services: services provided by a municipality that use digital technologies as a channel to interact with citizens.

Q

Qualitative methodology: a set of methods used to analyse a situation based on people's experiences and the meanings they generate. This approach is influenced by their everyday lives, emotions, beliefs, needs, perspectives and overall lived experiences. (Penalva Verdú et al. 2015).

Introduction

In an increasingly digital world, **equitable access** to technology and the internet has become key to social inclusion and active citizen participation. Yet despite technological advances, significant inequalities persist in access to and effective use of digital tools, particularly among the most vulnerable groups.

Digital divides are understood as disparities in access to digital skills and technologies and their use. Used in the plural, as in this guide, the term alludes to the complexity of the phenomenon and the multiplicity of existing divides.

The concept encompasses not only **opportunities** to access certain technologies, but also the **knowledge and skills** people need to get the most out of these technologies and enjoy the possibilities offered by the digital world.

Digital divides reflect and deepen social inequalities and represent a major challenge to local governments.



Lack of digital equality contributes to social isolation, generates dependency and hinders access to work and educational opportunities.

Citizen participation is vital to ensure that public policies and programmes meet a community's genuine needs and promote the feeling of belonging and empowerment.

Having citizens participate in a process promotes the community's appropriation of the initiative, which increases its effectiveness and long-term sustainability.

To comprehensively address the problems of digital divides, **studies** are required that not only identify **the barriers and challenges**, but that also provide **methodological guidance** for research and analysis.

This guide outlines the methodology used to conduct a **qualitative study** on digital divides within **specific groups**, which can be applied to similar projects and contexts.

With a rigorous and reflexive focus, this methodological guide offers instructions and recommendations to plan, conduct and analyse research on digital divides with sensitivity and thoroughness.

The aim of taking a **qualitative approach** to all these topics is to deeply and meaningfully capture participants' experiences, perceptions and needs. This approach enables a comprehensive **understanding** of how digital divides impact the everyday lives, opportunities and social relations of certain groups. It also helps **identify** potential solutions and strategies to address these issues.



PART

1

FOCUS AND PERSPECTIVES

- How did this guide come about?
- Who is this guide for?
- Objectives
- Background



How did this guide come about?

This guide arose from a digital inclusion project conducted in **L'Hospitalet de Llobregat**, a city in the Barcelona Metropolitan Area. Under the framework of its digital strategy, the city conducted a **quantitative survey** titled the *Enquesta de Bretxa Digital a L'Hospitalet. Informe de resultats* (Survey of the digital divide in Hospitalet. Report on results) (Institut Opinòmetre et al. 2022). The survey assessed **the state of social inclusion of its citizens** in relation to digital divides in the municipality.

It involved a series of initiatives designed to better understand the phenomenon of digital divides in this population.

Based on the results of the survey, a qualitative study was designed for which **five vulnerable population groups** were identified:

- Young people with a basic level of training.
- Families with children of compulsory secondary school age.
- Women who have suffered gender-based violence.
- Immigrant women who work in the care sector.
- People older than 74.

The aim of the qualitative study was to **explore and understand** how digital divides impact the everyday lives of these groups and **design and develop initiatives** to mitigate them. The three main dimensions of digital divides were explored in depth (see the “Background” section below), plus a fourth dimension regarding the experience of the groups in relation to their knowledge, use and opinion of municipal digital services.

This methodological guide emerged from the experience with a group of immigrant women working in the care sector. It contains guidelines and actions that were used during the qualitative study conducted with this group in L'Hospitalet de Llobregat.

These **guidelines and specific actions** were used to better understand the needs and experiences of the group of immigrant women. To **study other groups**, the tools and methods described here must be **adapted to the specific needs** of each study and each context. However, they provide valuable guidance to effectively address the relevant topics.

In the past, L'Hospitalet de Llobregat was characterised as a **host city** for various immigrant groups. Since 2000, there has been a notable increase in the **arrival of migrant women in the municipality**. These women have contributed significantly to the city's social and economic fabric (Margarit Segura 2008).

Data obtained through surveys such as the one mentioned above indicate that people of foreign origin have lower **connectivity levels** and **digital competence** than people of national origin (Institut Opinòmetre et al. 2022).

In this context, women who are immigrants, particularly those **employed in the care sector**, face significant challenges. These begin with irregularities in their legal status, which hinder their access to things like paid work and public services. Digital divides, exacerbated by gender inequalities, threaten to further increase these challenges.

Care work takes up many of the hours of the day for these women, both at work and at home, which **restricts their opportunities** to gain new digital skills or enhance their existing ones. In addition, as many of these women work in the homes of other people, their access to and use of information and communication technologies (ICT) depends on the equipment and possibilities in those households (Domínguez Alegría 2018; Monguí Monsalve et al. 2022).

Who is this guide for?

This methodological guide is designed to be useful to municipal services and entities, NGOs, associations and entities in the third sector or the private sector, and researchers working in areas of social inclusion.



Municipal governments and those responsible for public policies could benefit from this guide to design interventions and public policies that address inequalities in access to and use of digital technologies, and thus promote digital inclusion for all citizens.



In the **research area**, this guide may be used as a resource to plan, conduct and analyse qualitative studies on digital divides in specific groups, as it provides a robust, well-considered framework for research in this field.



This guide may also be of interest to **civil society associations and entities** working to promote digital rights and equal opportunities.



In short, this practical guide is aimed at all parties interested in understanding and addressing digital divides from an evidence-based approach focused on the community's needs.

Objectives

This guide has an overarching aim and three specific objectives:

The overall aim is to provide a **methodological framework of reference** for studying digital divides in specific groups with a qualitative approach that addresses the community's genuine needs.

The specific objectives are:

- **To provide methodological guidance** and practical recommendations to plan, conduct and analyse qualitative studies on digital divides.
- **To promote a comprehensive, participative approach** to closing digital divides, considering the specific characteristics of the various groups, and encouraging active citizen participation to ensure the relevance and efficacy of interventions and public policies.
- **To provide support materials** and practical recommendations for the implementation and replicability of the study.

Background

In the context of an increasingly digital and global world, people require digital skills, knowledge and resources to actively and equitably participate in society.

Digital divides are disparities in access to and use of digital technologies among different groups. They increase social inequalities and hinder citizen participation.

Digital divides are a source of inequality that has a more profound effect on **vulnerable groups** or those at risk of social exclusion, determined by a series of factors such as age, gender, educational and socioeconomic level and place of residence. Digital divides are a hindrance to ensuring that society progresses without leaving anyone behind (Llano and Quiroga 2021).

Study of digital divides considers **three dimensions** (Gómez Crespo and De la Torre Cuéllar 2021) and we add a **fourth** that is specifically relevant to the municipal context:

1. Internet access.

This dimension refers to the material possibility of accessing the internet (existence and type of connection) and having digital devices (computer, smartphone, tablet, etc.).

2. Internet use and purposes.

This refers to the way people use ICTs. It includes the frequency of their internet use, what they use it for (leisure, work, education), the potential benefits to their quality of life and their experience of use.

3. Digital skills and degree

of competence. This dimension relates to people's digital skills and their level of competence with digital activities. Use of social media platforms such as WhatsApp and Facebook are widespread among people with internet access. However, other activities requiring a more advanced level of skill are used by fewer people.

This methodological guide includes a **fourth dimension** that promotes fuller understanding of this phenomenon in the specific context of municipal digital services, and provides opportunities to increase inclusion and the quality of these services:

4. Knowledge, use and opinion of municipal digital services.

This dimension examines in depth how much the specific groups in the study know about and use these services, and what they think of them.

Many vulnerable groups are currently affected by digital divides, which risks their access to essential services. For each specific case, it is crucial to identify the most vulnerable groups with respect to digital divides and determine whether the dimensions affect each person differently. A deep understanding of this phenomenon will enable the design of suitable proposals for action to reduce digital inequalities.

Digital divides can only be bridged by correctly identifying and assessing the groups most vulnerable to them.





PART

2

METHODOLOGY

- Study methodology
- 1. Preparatory work
- 2. Implementation of the study
- 3. Analysis of results
- Timeline

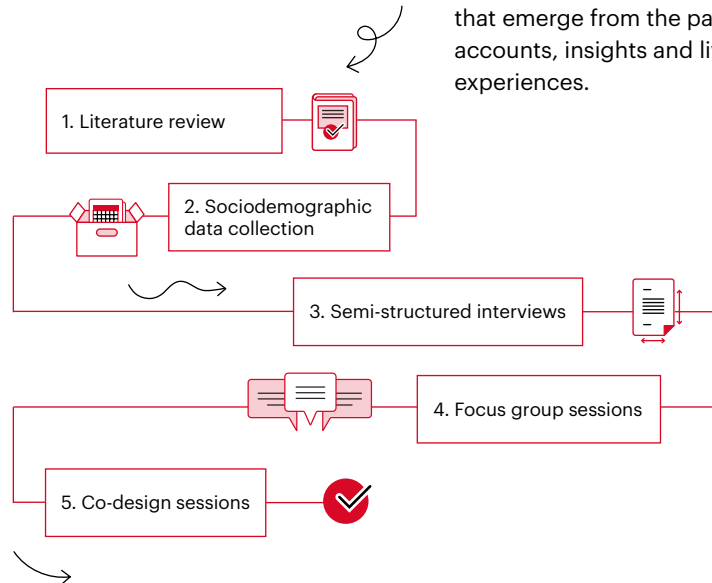


Study methodology

The **qualitative methodologies** proposed in this guide can be used to analyse a situation based on people's experiences and the meanings these generate, depending on their everyday lives, emotions, beliefs, needs, perspectives, lived experiences, etc. (Penalva Verdú et al. 2015).

Before starting a study of this type, it is important to assess the state of the issue and use **deductive analysis to deepen knowledge** to define the study focus and the questions to be examined with the groups involved.

To address the digital divides from a qualitative approach, the following tools should be used:



In this way, the deductive analysis **is complemented** with an **inductive analysis** to identify significant issues that emerge from the participants' accounts, insights and lived experiences.

Work plan The first step in a qualitative study is to draw up a work plan that acts as a **structural framework** to guide the entire process and set out the path towards knowledge generation. This can be done by **creating a diagram** that, in a graphic and organised way, presents the various phases of the study, the associated tasks, the people involved at each stage, the documents that are generated and those that are given to the participants.

There is also a distinction between whether the phases of the plan involve only the work team or take place jointly with other participants who may be members of the study groups, members of entities or municipal services technicians.

The work plan generally has **three phases**:

1. Preparatory work



2. Implementation of the study



3. Analysis of results





1. Preparatory work

During this first phase, all the **essential activities** should be carried out to ensure that the qualitative study is well planned and efficiently executed. This phase involves a set of activities that establish the practical and organisational bases for the study.



1.1

Literature review ↓

Starting with a literature review puts the current research into context, helps to establish **theoretical principles** and guides the **formulation of research questions**.

A literature review also establishes the foundations for assessing the **relevance and originality** of the study within the existing academic context. Concurrently information should be gathered regarding where the study will be carried out to understand the local context.

1.2

Mapping and coordinating the parties involved ↓

The aim of this type of study is to involve different actors, such as municipal services, associations and entities. Therefore, before the study begins, and depending on its scope, it is vital to determine **who will be involved**, establish **channels for efficient communication** and decide on the frequency of contact.

1.2

The incorporation and organisation of these parties can evolve throughout the study as needs arise.

1.3

Design of materials, tools, interviews and scripts ↓

To facilitate communication with the parties involved, it is important to design **informative study materials**, such as information and participation sheets adapted to those involved. These materials should explain the purpose of the study, the type of participation expected from each participant and the key moments in their participation.

A **participant information sheet and consent form** should also be designed for the study participants. These measures ensure that participants' involvement is voluntary, ethical and they have given their informed consent. They inform the participants of the nature of the study, its objectives, procedures, potential risks and benefits, and their rights as participants. They must be written in clear language that can be understood by all participants.

1.3

Suitable **tools** should be designed to ensure proper **collection of participants' sociodemographic data**. It is important to determine **which data** to gather and **why**. An easy-to-use tool for this purpose is an **Excel document tailored to each group**. This should include participant data such as the neighbourhood of residence, country of origin, language, annual income, age, occupation, religious affiliation, etc.

The creation of a database with selected variables and criteria will be useful to later compare the information with the qualitative content gathered during the interviews and focus group sessions.

1.3

The design of the **semi-structured interviews** (see the Glossary for a definition of this term), should specify the number of interviews, their duration and type (phone or face-to-face).

For the **focus group sessions**, the number of sessions, duration and number of participants should be defined for each group.

To conduct the semi-structured interviews and focus group sessions, **a separate script should be written for each specific group**. The interview scripts can be drawn up according to the four dimensions of the digital divide (explained in the “Background” section). These general topics can be taken as the starting point and examined in greater depth in the group addressed.



Questions

Consider the following questions for interview scripts for specific groups:

- ✓ Is your internet access more limited in some places than others?
- ✓ Do you have a mobile data plan?
- ✓ Have you ever lost data? Why and how did you handle this situation?
- ✓ Do you use any kind of banking application to receive your salary or for other things?
- ✓ Have you ever felt unsafe when you were looking for work on websites?
- ✓ Would you be interested in training professionally or continuing to train professionally? If so, is this desire affected in any way by a lack of knowledge of digital technologies?

1.3

If municipal services or entities are collaborating during the study, at this point they should be **asked to review the interview scripts**. As they are likely to have closer, more direct contact with the participants, their opinions will be useful and valuable.

The aim of incorporating various perspectives is to ensure that the proposed solutions are **relevant and adapted** to local needs. After conducting interviews and focus groups with each group, scheduling **co-design sessions** can be highly enriching. Municipal entities and services involved in the project, along with some of the study participants, can be invited to these sessions. **Each group's** unique **insights**, as revealed during the interviews and focus group sessions, should be considered in the design of these co-design sessions.

The aim of the co-design sessions in this type of study is to jointly formulate proposals for action to reduce digital inequalities.

When designing a session of this type, it is important to assess the **degree of impact** the proposed actions may have and the resources needed to implement them. The session should be tailored to the number and type of participants involved and adapted to their needs and interests. The design of the session will vary depending on whether it is conducted online or face-to-face.

Finally, **methodologies for analysing and assessing the entire study** should be established. The following aspects of the study should be assessed: success in the process of selecting and recruiting participants, adaptation to the proposed schedule, methodological quality (internal validity, external validity, dependability-reliability and confirmability-objectivity) and the experience and satisfaction of the participants, entities and collaborating services.

1.4

Voucher-based remuneration ↓

Participation should be encouraged, especially that of members of vulnerable groups who may have limited time or resources. This can be done by offering **small voucher-based remunerations** or any other type of remuneration.

Offering some type of remuneration to participants helps to achieve a representative sample and varied data. At the same time, it recognises the value of people's time and effort.

The remuneration should be adapted to the interests and needs of each group and to the geographic area. Whether the vouchers are in digital or print format should also be assessed separately for each specific group.

1.5

Coordinating study rooms and materials ↓

If face-to-face sessions are required, it is essential to consider in advance **the spaces** available for this purpose, and the **characteristics** needed.

Face-to-face sessions should be held in spaces with suitable characteristics for each activity and specific group.

Offering a **childcare service** can encourage participation and ensure that childcare does not limit attendance at focus group sessions. If municipal services and entities are involved, they can generally help obtain these spaces.

A **video camera** (or mobile phone) is required to record the focus group sessions. For interviews, **an audio recording device** is needed (which could be a mobile phone of sufficient quality).



2. Implementation of the study

2.1

Coordinating with municipal services and entities ↓

Municipal services and local entities provide **specific knowledge** of the local context so that applicable relevant recommendations can be made. Their collaboration increases the **validity of the study** and promotes participants' trust. Municipal services and entities also provide logistic resources and **operational support**, optimising a study's efficiency.

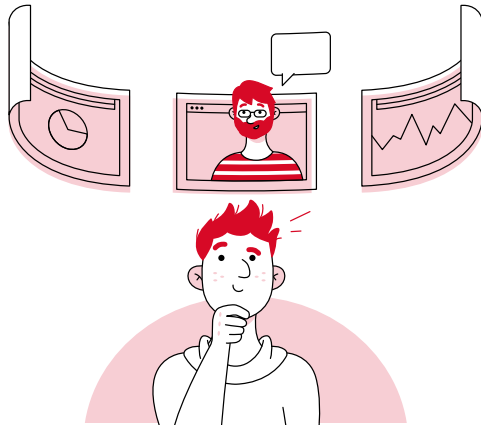
It is essential to involve municipal services and local entities in all qualitative studies of digital divides. It facilitates access to vulnerable groups and ensures representative, reliable participation.

Local entities **enrich the analysis** and understanding of digital divides by providing a multi-sectoral view of the issues. Their involvement is vital to implement **long-term sustainable solutions**. They also help to translate a study's findings into **public policies** and effective programmes. And finally, local entities identify and address the **specific barriers** vulnerable groups face, enabling the design of more precise and effective interventions. This contribution was key throughout the study from which this guide emerged.

When municipal services and entities are included, they must be clearly informed of the study objectives and collaboration expected of them at different stages (via materials specifically designed for this purpose).

2.1

Example In the qualitative study that was conducted after the *Survey of the digital divide in Hospitalet – Enquesta de bretxa digital a l'Hospitalet. Informe de resultats* (Institut Opinòmetre et al. 2022) — coordination with **various municipal services** was ongoing throughout the project via email and online meetings. The **collaborating entities** varied depending on the group worked with. For each specific group, the researchers collaborated with different municipal services and local entities. For instance, for the group of immigrant women, the researchers worked with the Centre d'Atenció i Informació a la Dona (Women's Care and Information Centre), and collaborating entities such as Fundació Akwaba and the Fundació Cultura Tretze.



Initial meeting. An initial meeting of the main parties involved is recommended to define the **work guidelines**. It should have the following objectives:

- ♦ Present the project.
- ♦ Establish the timescale and methods of collaboration.
- ♦ Define the groups.
- ♦ Approve the scripts for the interviews and focus group sessions.
- ♦ Draw up a list of entities to invite to participate in the study.

An effective way to start this meeting is with a **reflection** on the reality of the group addressed to enable an immersive understanding and foster empathy. Putting yourself in the shoes of those of the group will encourage greater **understanding** of their experiences, beliefs and difficulties. It will also facilitate **reflection** on how they are affected by digital divides.

2.1

Many of the meeting attendees may have never contemplated the topic in depth, not being directly affected by it. Putting themselves in the position of the group in question can bring a **new perspective** and drive the search for **more inclusive and effective solutions**.

The contribution of municipal services and local entities is fundamental during the entire process and to consult on work materials.

Because they work closely on a daily basis with vulnerable groups, municipal services and entities better understand their needs and difficulties. Their direct experience and knowledge of the local context are invaluable to effectively address the challenges these groups face.

Call for participants and recruitment.

With municipal services and local entities involved, their **networks and contacts** can be used to recruit study participants.

Local entities can **act as a bridge** to connect with potential participants. They can make first contact and inform potential participants of the

study objectives, the conditions and guidelines for participation, the data protection and confidentiality characteristics, and other aspects.

After the entities have provided an initial list of potential participants, they should be contacted again to be invited to take part in more specific activities.

The **channel of contact** should also be suited to each group, considering the most feasible, useful communication channels for each. In some cases, applications such as WhatsApp can be used, while in others it is better to call by telephone (such as groups of older people).

2.2

Sociodemographic data collection ↓

Creating a **sociodemographic database** of potential participants ensures better understanding of the study sample and a rigorous selection process (according to the variables defined for each group).

Data collection ensures a **representative and inclusive sample**, accounting for factors such as age, sex, origin, area and neighbourhood of residence, educational level, socioeconomic level, religious affiliation and others.

Data can be collected during the initial recruitment of participants (by municipal services and entities) and in greater depth when participants are contacted to be invited to take part in the semi-structured interviews and focus group sessions.

2.3

Semi-structured interviews ↓

The study that led to this practical guide conducted **six semi-structured interviews** (see the Glossary for a definition of this term). They lasted approximately one hour and were carried out by phone. As mentioned, the number of interviews, their length and type will depend on the needs of each specific study and the groups included.

While an **interview script** following pre-established guidelines is written before the interviews take place, **a fluid space for conversation** with no fixed order is needed to help participants feel comfortable and able to speak freely, and so the interviewers can adapt and formulate new questions depending on the participants' responses.

To promote open communication from the interviewees, the interviews need to be flexible.

2.3

To give the interviews structure, the topics they cover (also in the focus group sessions) can be guided by the **four dimensions** of digital divides, briefly: internet access, internet use, digital skills, and knowledge of municipal digital services (explained in the “Background” section).

Holding the **interviews before the focus group sessions** gives an initial idea of which topics should be addressed, based on the participants’ experience. It also helps determine whether questions should be added or removed during the focus group sessions.

2.4

Focus group sessions ↓

Focus groups comprise a small number of people selected according to a set of predetermined criteria, such as place of residence, age, socioeconomic level, origin, etc. to discuss a specific topic, in this case digital divides.

This qualitative research technique can be used to gather data through **group interaction**.

It is important to form the focus groups according to the characteristics of each specific group and to include topics derived from the semi-structured interviews.

To ensure equitable participation, all participants should have the opportunity to speak. Contributions within the group should be balanced and representative of the various perspectives. Different techniques can be used **to drive the discussion**, such as establishing clear rules for participation and using active moderation, idea stimulation and provocative questions.

2.4

At this point, it is productive to create a space in the discussion for the participants to **propose ideas** or solutions to **overcome the barriers** in the digital divides identified. These contributions may be incorporated into a co-design session (see the following section).

During the study that gave rise to this methodological guide, a focus group session was held with migrant women working in the care sector. It lasted 2.5 hours and eight women took part.

The variables used to form this focus group should be well defined previously, to ensure the discussions are focused on the most relevant experiences and perspectives. This will enrich the quality of the data collected, and enable consistent identification of **patterns and trends**, increasing the **validity and reliability** of the results.

2.5

Co-design sessions ↓

Once the focus groups have been conducted and with the aim of working on more specific proposals for action, **co-design sessions** (see the Glossary for a definition of this term) can be organised with all actors: municipal services, local entities and participants. These sessions will enable the integration of various perspectives. Three of the most notable aims are to:

- ◆ Ensure the relevance and applicability of solutions.
- ◆ Promote the collaboration and commitment of all the parties involved.
- ◆ Develop more effective, sustainable interventions that respond appropriately to the needs identified in the focus group sessions.

The **results of the analysis** of interviews and focus group sessions should be presented in a co-design session to jointly design proposals for action. Proposals should focus on addressing the **problems identified** by the participants to reduce inequalities caused by the digital divides within each specific group. The use of this methodology

2.5

is crucial to genuinely give voice to the needs of the groups and foster their empowerment.

Co-design methodologies are an approach in which various parties collaborate actively to generate knowledge.

These methods enable a wide range of actors to contribute to **identifying challenges and developing solutions**, and they help to build environments for **equitable collaboration** among those involved. This requires **close, continuous interaction** between actors, during which **perspectives and experiences are appraised** and integrated, to find common solutions or courses of action for all interested parties.

This methodology promotes the validity, relevance and applicability of findings and empowers the participants by actively including them in the research process.

Useful **co-design techniques** include mapping resources, co-creation workshops, empathy maps and affinity diagrams (the “Annexes” section contains supporting materials on these topics).

The study that led to this guide involved **five co-design sessions** with municipal services and entities, one for each specific group. This experience showed that co-design sessions, like the interviews and focus group sessions, require **an inclusive, collaborative environment** in which participants feel comfortable sharing ideas. **Clear objectives** should be established and **visual tools** used to organise ideas effectively.

Active facilitation is essential to guarantee that all participants contribute and focus on generating practical, specific solutions. In addition, **creativity must be encouraged** and proposals **documented** carefully, so they can be followed up effectively.



3. Results analysis

To ensure accurate analysis of results in a qualitative study on the digital divides, the process should be methodical and detailed. This involves **transcribing and organising** the interviews and co-design sessions, then **coding the data** to identify themes and emerging patterns. The results should be interpreted in relation to the existing literature and the socioeconomic context of the municipality. The reliability of the analysis should be validated through data triangulation and consistency verification.

The results should be presented clearly and understandably, with a focus on the practical implications and recommendations to tackle digital divides effectively.

3.1

Types of analysis applied ↓

Various methods can be used to analyse the information obtained through semi-structured interviews and focus group sessions:

Theme and content analysis. This serves to identify and categorise themes and emerging patterns in the qualitative data. This type of analysis helps to **organise the content** to gain **a deeper understanding** of the underlying meanings and to identify and analyse **recurring or significant topics**.

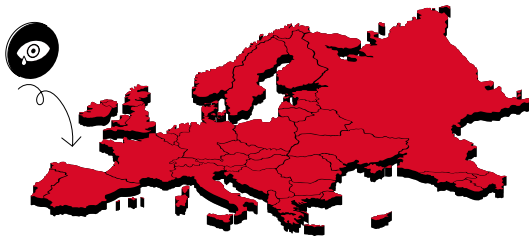
Example During the focus group session with immigrant women working in the care sector, a recurring theme emerged: the importance of establishing **support networks** when you arrive in a new country. This theme was notable for the frequent use of key terms such as *communication, sharing, networks and community*. Participants expressed the need for these networks to face the challenges of **adaptation**, find **resources** and share **experiences**. They also underlined the relevance of using digital media as a tool to build and strengthen these support networks.

3.1

Interpretive phenomenological analysis.

This can be used to understand the participants' experiences, with a focus on their **lived experiences** and on the way they perceive and **make sense** of their world.

Example In the same session, it was observed how the participants described their arrival in a new country as a challenging, **overwhelming experience**, marked by the feeling of being "strangers", in an unfamiliar environment. This description highlights the importance of exploring the **psychosocial and emotional** adaptation of migrant women in the context of care work.



Narrative analysis. This focuses on **identifying patterns** and meanings in participants' individual stories and on how they construct and relate their **experiences**.

Example In the same session, in relation to **online shopping**, the focus was on how women construct their experience. Their narratives repeated the idea of **mistrust** in online shopping and the feeling that they lacked the necessary skills to determine whether making **a purchase is safe or not**. This reveals common patterns in individual stories, including the importance of **trust and perceived competence** in carrying out this type of activity.

For further information on the analysis of the focus group session results, see the "Annexes" section.

3.2

General qualitative report ↓

As a final product, a **general qualitative report of the study** should be drawn up as a way to communicate the results to all interested parties, including those responsible for public policies, municipal services, local entities, associations and communities, and researchers.

A rigorous report has the following advantages:

- ♦ It enables the actors involved to understand **the magnitude and nature** of the **digital divides** in vulnerable groups and helps them make informed decisions. Highlighting which current practices are working and which are not enables local governments to adapt and improve their **intervention strategies**. Recommendations based on the qualitative analysis provide a **practical model** for implementing more effective solutions.

A strong report provides an opportunity to reflect on the study conducted, assess the methods used and consider the challenges encountered. This can inform future studies and improve the quality of qualitative research in general.

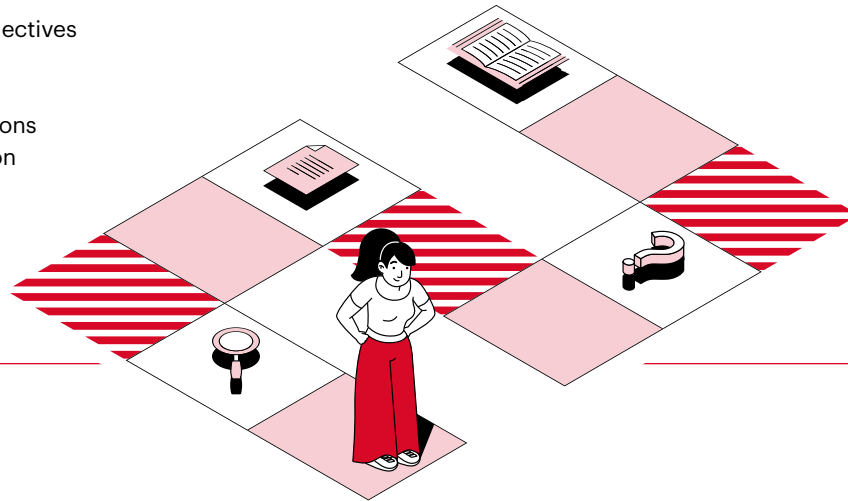
- ♦ As the report describes the lessons learnt during the study, it **raises public awareness** of the existence and impact of digital divides in vulnerable groups. By presenting the stories and experiences of those affected and raising awareness in society, it can **mobilise support for digital inclusion initiatives**.
- ♦ It serves as a **catalyst for action**. By presenting the problems detected clearly and providing potential solutions, the report can **drive** entities, communities and governments to take **specific measures** to reduce digital divides in vulnerable groups.

3.2

Structure

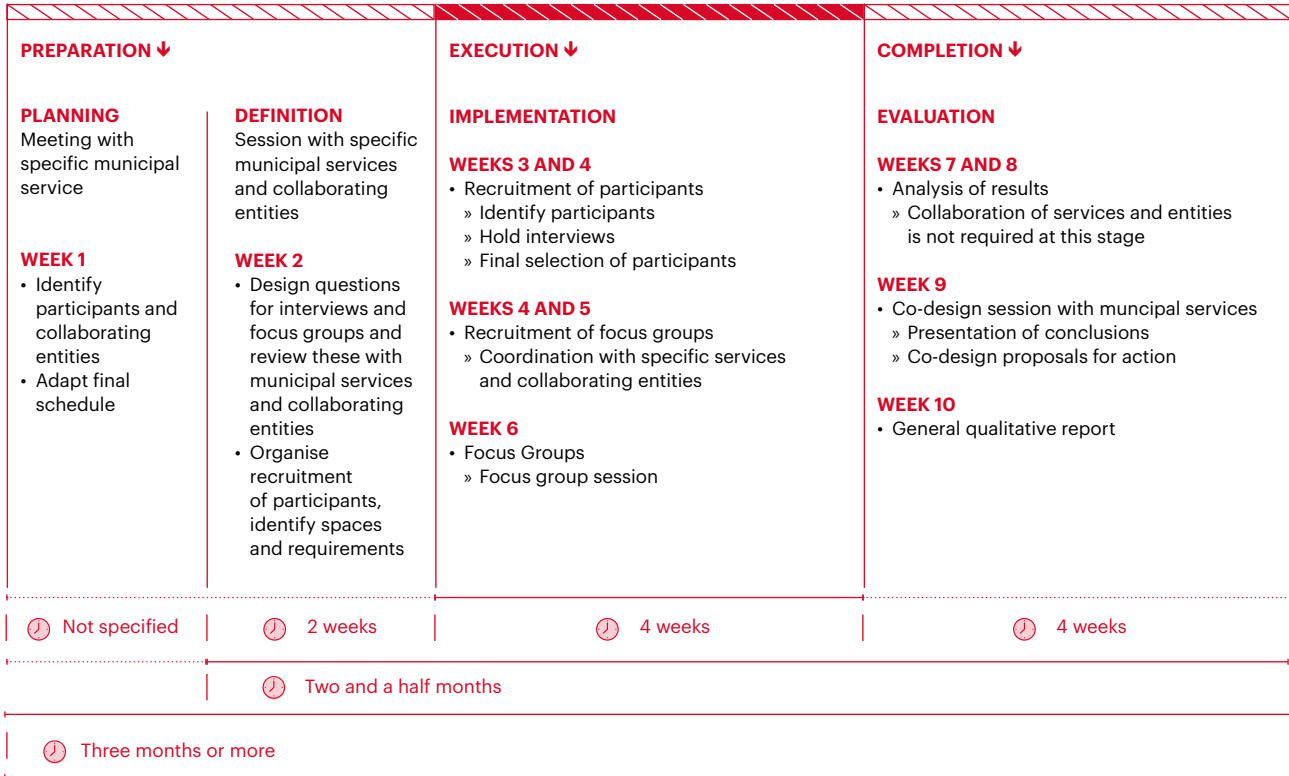
The following structure should be used to create the qualitative report:

- ♦ Introduction
- ♦ Background
- ♦ General and specific objectives
- ♦ Study methodology
- ♦ Results
- ♦ Discussion and conclusions
- ♦ Proposals for intervention
- ♦ References



Timeline

Below is a proposed timeline for working with the groups involved in this type of study. Ideally, it should be flexible and adaptable to the needs and availability of the parties involved, such as municipal services and local entities.






PART


3


→ Recommendations





Based on our experience, we offer the following recommendations for conducting a study of this type:

-  **Create an environment of trust in the focus group sessions.** The participants must be made to feel that they are in a **safe space** where they can share their experiences in an open, non-judgmental way, before delving into the specific study questions. To create an environment that favours the exchange of experiences, each session should start with a **round of introductions** in which participants can speak freely, generating a non-directed exchange.
-  **Rely on the local association sector. Close, effective communication** with local entities is essential. Some parts of the study may not always return the expected results, but maintaining good communication will ensure that any issues arising can be resolved. In addition, vulnerable groups often turn to local entities for support. As these entities are trusted figures, they can be of great help during the process. Their **collaboration** is crucial to successfully addressing this type of problem.
-  **Set up reminders for meeting dates, times and places. Clear and effective communication** with the group members is key to productivity. In general, vulnerable people may not be consistently on their mobile phones or have mobile data. So it is important to give them information in advance and repeat reminders the day before to confirm their participation. This will ensure that the study has the **stipulated sample size**, and it will allow for some leeway if changes are needed.
-  **Invite focus group participants to collaborate in co-design sessions.** At the completion of focus group sessions, it was found that being invited to participate feels **empowering** to the group. They often view the opportunity to participate in a project that can transform their lives as a **motivating factor**.

 **Remunerate participation.** As far as possible, some form of remuneration should be offered to those who have participated actively and positively. This remuneration should be easy to distribute among the participants, such as via email or the applications they use in their daily life, such as WhatsApp. In this way, people can be remunerated quickly and easily.

 **Prioritise effective coordination and communication.** A study of this type requires the coordination of various parties and their collaboration at several stages of the process. **Effective communication** is required on the objectives, timeline, level of commitment and function of each of the parties involved. Successful communication of these aspects leads to better management of participants' **expectations**, which results in greater willingness to engage. To achieve this aim, the use of **visual tools** with concise, clear information is recommended to ensure effective communication, whether it is with municipal services, entities or citizens.

 **Show sensitivity and adaptability.** It is vital to show sensitivity to the realities experienced by the study participants, whether this is demonstrated by the municipalities, the entities or the interviewers and the focus group sessions. In practice, this means being flexible and **adapting to the needs** of each person or group, particularly considering that these groups may be **socially vulnerable** and find it difficult to participate under the conditions initially established.

 **Consider the availability of participants.** Adapting to the availability of the participants will ensure **greater participation and commitment**. This involves **coordinating the days and times** that are easiest for them to attend, which may vary for each group.



Obtain informed consent. In accordance with the General Data Protection Regulations (GDPR), **the signature or verbal consent** of participants is required before the personal data collected in interviews and focus groups can be processed and stored. Therefore, it is essential to determine **the simplest and most practical way** to obtain informed consent in each group. Similarly, it should be made as easy as possible for participants to **receive voucher-based remuneration**. Participation must not become an added burden to their daily lives.



Give priority to recordings. A **second video recording device** should be made available in case the first does not work for any reason during the face-to-face sessions. This ensures that no important information is lost, and the session is effectively documented.



ADDITIONAL CONTENT

- References
- Acknowledgements



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Editing and design

Lara Cummings, editor and proofreader
Manuela Moulian, designer

We would like to thank the following people who collaborated in the project design:

Local entities and associations

Elena Linares, Asociación Cultura Tretze;
Xenia Mejía, Fundación Akwaba

Municipal services of L'Hospitalet

José Luís Molina, Active Ageing; **Cristina Santón**, Urban Quality Area; **Marivi Mur** and **Marta Boldu**, Woman's Care and Information Centre; **David Jerez** and **Maria José Pérez**, Education; **Marta Riera**, **Mònica Roncero** and **José Antonio García Calvillo**, Economic Promotion; **Raúl Izquierdo** and **Mari Carmen García Calvillo**, Analysis and Prospective and Open Data Section

This report should be quoted as follows:
 Digital Future Society. (2024). Practical guide. Using qualitative methods to study digital divides in specific groups.

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ANNEXES

- Annex A
- Annex B
- Annex C



Annex A

Additional information on co-design methodologies

Design Toolkit of the Open University of Catalonia (UOC)

This toolkit provides tools and methodologies to facilitate the design process. It is particularly useful for multidisciplinary teams who wish to improve collaboration and creativity in their projects.

[online] Available at:

<https://design-toolkit.recursos.uoc.edu/es/>

(Accessed: 7-6-2024)

Design processes and methods (Booklet on person-centred design, UOC)

This resource provides a detailed overview of design processes and methods and includes valuable tools and methodologies to improve the planning and implementation of projects.

[online] Available at: <https://quadern-dcp.recursos.uoc.edu/es/5-procesos-y-metodos-de-diseno-5/>

(Accessed: 7-6-2024)

Additional information on focus groups

Focus Group Toolkit of the Center for Community College Student Engagement (CCCSE)

This toolkit provides guidance and practical resources for planning, executing and analysing focus groups in the context of educational research.

[PDF] Available at: <https://cccse.org/publications-resources/focus-group-toolkit>

(Accessed: 7-6-2024)

A Practical Guide to Focus-Group Research

This article is a valuable resource for understanding the decisions and considerations involved in conducting research with focus groups. It is centred on the learning experiences of students.

[online and PDF] Available at: <https://www.tandfonline.com/doi/full/10.1080/03098260600927575>

(Accessed: 7-6-2024)

Additional information on the analysis of focus group results

A Qualitative Framework for Collecting and Analyzing Data in Focus Group Research

This article provides a comprehensive review of the various methodologies and approaches existing to analyse focus group results. This is fundamental to in-depth understanding of participants' experiences and perspectives.

[online and PDF] Available at: <https://journals.sagepub.com/doi/full/10.1177/160940690900800301>

(Accessed: 7-6-2024)

Annex B

Fact Sheet for participants

Introduction

This project involves the development of a qualitative study on the digital divide with specific groups in L'Hospitalet de Llobregat. The aim is to deeply examine how particular groups are impacted by digital divides and design proposals to reduce digital inequalities.

The study builds on the *Encuesta de Brecha Digital de L'Hospitalet de Llobregat, 2022* (Survey of the digital divide in L'Hospitalet de Llobregat, 2022), conducted under the L'Hospitalet 6.0 initiative of L'Hospitalet de Llobregat City Council, with support from the Mobile World Capital Barcelona Foundation (MWCcapital), which aims to position the city at the forefront of digital technologies without leaving anyone behind. The goal of the survey was to assess the digital divide in the city and develop initiatives to combat it effectively.

The digital divide refers to:

- ➔ Inequality in access to, use and impact of information and communication technologies (ICT) between social groups.
- ➔ This inequality is associated with issues such as geographic location, financial situation, social and cultural factors, and sex.
- ➔ Digital divides are direct consequences of social and other divides and perpetuate them, acting as a factor in social and personal exclusion.

The groups addressed will be:

- **Group 1:** Young people with a basic level of training
- **Group 2:** Families with children of compulsory secondary school age

- **Group 3:** Immigrant women who work in the care sector
- **Group 4:** Women who have suffered gender violence
- **Group 5:** Elderly people.

Below is the definition of the group of immigrant women:

- Immigrant women who work in the care sector

Women aged over 18 who are immigrants from countries outside of Spain, with or without legal status in Spain, who work in the paid care sector and are uneducated or have a basic level of education.

For each group, the following topics relating to the digital divide will be qualitatively researched:

1. Internet access
2. Use of internet and purposes
3. Digital skills and degree of competence
4. Knowledge, use and opinion of municipal digital services

To investigate these topics in depth, semi-structured interviews and focus groups will be held to gather information on how the digital divide affects each group. During the sessions, information will be collected on the challenges, needs, and difficulties these groups face concerning digital divides.

A session will then be held with municipal services, to **co-design proposals for action to reduce these inequalities**.

As a result of these sessions, a report will be written describing the needs and barriers identified for each group in relation to digital divides and the proposals for action to reduce these inequalities.

General objectives of the study

1. To conduct a qualitative study on the digital divide with specific groups in L'Hospitalet de Llobregat, to learn more about how it affects them.
2. To conduct the study using qualitative and participative methodologies, which combine individual interviews, focus groups, participative methods and co-design.
3. To co-design proposals for action aimed at reducing digital inequalities in these groups with the collaboration of participants, municipal services and city entities.
4. To generate knowledge for the fight against the digital divide, the promotion of digital talent and digital upskilling, the digitisation of local government and its relationship with citizens, and the digital transformation of the city's production sector in accordance with its commitment to the Carta Catalana pels drets i les responsabilitats digitals (Catalan Charter for Digital Rights

and Responsibilities) of the Catalan Government's Director General for Digital Society, Department of Digital Policies and Public Administration.

Collaboration with municipal services and entities

Municipal services and entities will collaborate throughout the project to:

1. **Define the groups.** While there is an initial proposal defining each group, municipal services and entities will contribute their experience and making suggestions to improve the initial definitions.
2. **Approve the scripts.** An initial version of the script will be proposed for the semi-structured interviews and focus groups. Municipal services and entities will collaborate to finalise the scripts and provide suggestions to ensure they address the concerns and needs of each group as closely as possible.

3. **Recruit participants.** As the municipal services and entities work daily with people from these groups, it is crucial to engage them in the recruitment of participants.

4. **Make proposals for action.** The participation of municipal services and entities will be essential in the co-design of proposals for action to reduce inequalities in the digital divide in specific groups. Once the focus groups have been carried out, a work session will be held to identify specific actions that may respond to the needs expressed by the groups.

Annex C

Interview Script – semi-structured interview/focus group

Group – immigrant women

Women aged over 18 of immigrant origin from countries outside of Europe, with or without legal status in Spain, who work in the paid care sector, with no education or a basic level of education.

Internet access

- How would you describe your internet access? Have you had, or do you currently have, any limitations in accessing the internet? If so, what are the reasons? – For example, lack of a device (smartphone, computer, tablet), financial constraints preventing you from accessing an internet plan, or other reasons.
- What devices do you have, which do you use most often and what for?

Do you feel the need for any device that you do not have access to now? Why and for what purpose? How do you think this lack of access affects your life?

- What data plans do you have? Do you ever have no data? Is this for financial reasons? How do you manage this?
- How does this access or lack of access affect you in your daily life? How does it affect you in relation to work?
- How important is internet access in your daily life and why?
- Are there contexts or places where your internet access is more limited than others?

Use of internet and purposes of use

- Do you use the internet on a daily basis? What for? Do you think there is a link between your personal motivations and your internet use? What is it? How does this affect your participation in society? How do you see the relationship between your personal reasons for using technology and the opportunities you have in society? How does this affect your general well-being?
- Does the internet function as an important channel of communication with your place of origin?
- Do you send money to your country of origin? How do you do this?

- Has using the internet enabled you to connect with people in your new place of residence to create new community networks and friendships? If so, have these new connections that you have made become a source of support while you are away from your place of origin? - Do you use the internet for your work or have you used it to find work? Have you used tools, applications or websites for this purpose? Which ones have you used and what has your experience been like?
- How do your employees pay you? Do you use any apps for this purpose like a digital wallet?
- Have you ever felt unsafe looking for work through websites? For example, have you experienced harassment, misleading advertisements, or other issues?
- Do you use the internet for recreational purposes? In what way and which applications do you use? How often do you do this?

- Have you used the internet as a tool to connect with and actively participate in the community where you live now? For example, did you use it to find information about vaccination centres during Covid-19 or have you used it to find election dates?

Digital skills and level of competence

- Do you know what digital skills are? Which ones do you consider to be the most important in your daily life? How did you gain these skills and to what extent do you feel comfortable using digital technologies? Do you feel that you are lacking knowledge in this area? If so, how do you think that the lack of increased digital skills impacts your life? Have you received training in digital skills?
- Has language ever been a limiting factor in your use of new technologies?
- Do you think your knowledge of the internet and the digital world helps you simplify your everyday tasks

in any way, such as by doing your supermarket shopping online?

- Would you like to learn more about new technologies and how to use them? Is your use of the internet and new technologies limited in any way by your knowledge? Do you think you could make better use of them or get more out of them if you knew more about how to use them?
- What other reasons do you have for doing training courses, meeting people? (for example, doing courses and activities as a way to form part of the community).
- Would you be interested in training or continuing to train professionally? If so, is this desire affected in any way by your lack of knowledge of the use of new technologies?
- When you encounter a situation in which your digital skills are insufficient to complete a procedure or resolve a problem that requires the use of digital devices, who do you turn to for help?

Knowledge, use and opinion of the city's municipal digital services

- Did you know that there is a city council application for municipal procedures? Are you familiar with the digital services offered by the city? If you use them, what do you think of them? What do you use them for? How did you find out about this service? Which ones do you use most frequently? Which channels do you prefer for contacting municipal services: by phone, in person or online? Do you think that the option of carrying out procedures online has any advantages over more traditional channels?
- Have municipal digital services helped you in any way to get settled in this new place? Have they helped you solve problems or concerns or feel more included?
- For those who do not have legal status in Spain: how does this affect your access to these services? How have you managed these limitations?
- Has language ever been a barrier to using municipal digital services? - Would you prefer these services to be face-to-face?
- Do you find any differences in these services depending on whether you use them on a mobile phone or a computer?

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