

# “We live in a plural world”: A Framework for Rapid Interdisciplinary and Community Engagement

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## Abstract

Designing effective products and services requires a sensitive understanding of the people for whom you are designing. There are a number of established approaches for achieving this, all of which are predicated on notions of community participation in research and development work. However, such participatory approaches are often deemed to be too specialized and time-consuming to be used at scale. Taking the opportunity generated by four concurrent RiseWise secondments in Guimarães, Portugal, we developed, trialled, and evaluated a framework for working together across disciplines and levels of experience, and with a local community of older adults. This chapter details this work and makes two key contributions. In describing our approach to engaging with a diverse group of older people through their local community association, we first provide a framework for inclusive and efficient community involvement. Secondly, we reflect on the experience of consolidating approaches and knowledge across disciplines within the research team, and on the impact that working closely with the community had on the research team.

**Key words:** Interdisciplinary research; Inclusive Design; Participatory Design; Action Research; stakeholder engagement; community involvement

## **1. Introduction**

RiseWise was a large European project that focused on understanding the experiences of women with disabilities with a view to improving their quality of life and their participation in society. It promoted staff exchange and collaborations among its partner universities and associations across six countries, who collectively comprised a range of expertise relevant to its goal of empowering women with disabilities. These staff exchanges involved individuals being seconded to partner institutions abroad, with cross-pollination between academic and non-academic environments; in other words, academic staff were seconded to Non-Governmental Organizations (NGO) and vice-versa. Secondments were typically self-directed according to individual interests, with some support and guidance provided by the host institution.

The opportunity for the work described in this chapter originated from four RiseWise secondments in Guimarães, Portugal, which overlapped with each other for just under two weeks. These four RiseWise secondees were from three European countries and represented different fields of expertise and levels of experience. Although they were seconded to *Fraterna*, a local non-profit community association, they were also hosted by researchers from the University of Minho, some of whom were involved in RiseWise. This group make up the authors of this chapter and will henceforth be referred to either collectively as RiseWisers or by their initials, as appropriate. The RiseWisers ranged from postgraduate students to senior members of staff, from various disciplinary backgrounds. This posed an initial challenge of identifying a shared research problem, where this diversity could converge and truly be an asset to collaboration. For this, we needed a real-world problem.

Through conversations with *Fraterna's* staff about the local community and their needs, it was agreed that the work would focus on understanding the experiences of older adults with Information and Communication Technologies (ICT) and how these can contribute to improving their lives in a meaningful way. This is a prolific and multifaceted research topic (Knowles & Hanson, 2018), which has seen a shift towards deeper involvement of older people in efforts to understand their genuine needs and design solutions that meet them (Fondevila Gascón et al., 2015; Greenhalgh et al., 2013; Pradhan et al., 2020; Rogers et al., 2014). Underpinning these participatory approaches is a call to recognize the wisdom and the diversity of older adults beyond any stereotypes concerning an age-related decline in abilities (Durick et al., 2013; Lindley et al., 2008; Neves et al., 2018; Vines et al., 2015). Huppert notes that, while ageing can

precipitate a decline in abilities, disabilities can become more evident when a person is faced with new, demanding or complex situations (2003). However, the same author argues that the majority of older adults today comprise a large group of people with slight disabilities who are keen to maintain their independence and contribute to the community. Older adults are also living longer and therefore often live with and manage long-term health conditions as part of their daily lives, which adds to the homogeneity of this sector of the population (empirica et al., 2010).

The aim of this chapter is to broadly describe and critically reflect upon the work that we carried out in Guimarães and, in doing so, provide a framework for rapid interdisciplinary and community engagement. The remainder of the chapter is divided into five interconnected sections. We begin with a brief consideration of interdisciplinary collaborations and different approaches to community engagement in research, drawing mostly on design and social sciences literature. The next section details the participatory engagement framework and circumstances of work undertaken, followed by a section on the evaluation of this work by the RiseWisers. In the final two sections, we reflect on the process as a whole and conclude by articulating a future research agenda that builds upon the work described here. In this, we contribute towards breaking down perceived barriers that hinder the adoption of interdisciplinary and participatory approaches in research.

## **2. *Ways of working***

### *2.1. Across disciplines*

Societal challenges are by nature compelling and complex. While much academic research purports to work towards this end goal, understanding how to achieve effective and sustainable societal impact remains an ongoing ambition for many. Involving various disciplines in research, as well as external collaboration with decision-makers, has long been identified as key in this pursuit (Wowk et al., 2017). Addressing complex problems in all their relevant dimensions requires a variety of competencies and toolsets. Thus, combining different perspectives, based on different disciplines, allows partial understandings to be counteracted and knowledge synergies to be established (Lowe & Phillipson, 2009). In fact, at the intersection of seemingly unrelated knowledge domains and the unexplored connections between them lies the

potential for innovation, ranging from new explanations and solutions to old problems, methodological innovations, to new questions and ideas (Mazzocchi, 2019). Moreover, collaboration across disciplines can also personally benefit those involved through motivational factors, such as social relations, personal development, and intellectual curiosity, as well as through its inherent creative potential (Siedlok & Hibbert, 2014).

Collaboration across disciplines can take several forms, the most familiar of which are multidisciplinary, interdisciplinarity, and transdisciplinarity. A principal distinction between these forms of collaboration is that in multidisciplinary research disciplinary boundaries are still maintained; in interdisciplinary research there is some integration across these boundaries so that parts of the original disciplines are combined into a shared approach; and transdisciplinary research takes it a step further so that disciplinary boundaries become irrelevant or are radically reshaped (Mazzocchi, 2019; Siedlok & Hibbert, 2014). Despite these varying levels of involvement across disciplines, persistent barriers to effective collaboration remain. On the one hand, these are attributed to institutional factors such as a lack of appropriate structures and incentives, the existence of deterrents such as performance metrics that fail to contemplate societal impact (Wowk et al., 2017), and ill-prepared systems of research funding and rewards more generally (Mazzocchi, 2019). On the other hand, difficulties can arise at the interpersonal level, including disciplinary differences in language and terminology (Burrows et al., 2016), research strategies and methodologies, and overall work practices (Mazzocchi, 2019). With these relational challenges in mind, a comprehensive review of the literature identified seven essential attributes of successful interdisciplinary research teams: team purpose, goals, leadership, communication, cohesion, mutual respect, and reflection (Lakhani et al., 2012). Some of these attributes overlap with existing models for interdisciplinary collaboration (e.g. (Bronstein, 2003)), but we found the literature lacking in terms of process-driven frameworks for this purpose.

## 2.2. *With communities*

“Nothing for us without us” is a frequently used affirmation in Inclusive Design, attributed to no person in particular but the maxim of many (most notably among disability rights activists and advocates). Although Inclusive Design is often understood as designing *for* diversity, in reality it aims to design *with* diverse communities and to encourage users themselves to steer

the design process (Langdon et al., 2014). This is in line with recommendations to actively include users through dialogue and knowledge co-production to address complex societal challenges (Wowk et al., 2017), while also striving for diverse representation and inclusion. Inclusive Design therefore takes a user-centred design (also known as human-centred design and person-centred design) approach, which means actively involving users in the design process alongside multidisciplinary teams with appropriate expertise and technical skills (Maguire, 2001). The benefits of user-centred design are widely acknowledged, ranging from more accessible and relevant design outputs to more ethical and transparent relationships between developers and consumers. Nevertheless, certain misconceptions about user-centred approaches, namely that it can be costly and time-consuming, perpetuate barriers to its widespread adoption (Chamberlain, 2010).

In reality, user-centred design can go from relatively swift interactions with users, such as usability testing, to more prolonged and participatory approaches. Participatory Design envisions users participating in all phases of the design process and argues for power to be shared amongst all stakeholders involved in the design process (Bratteteig & Wagner, 2014). This positions Participatory Design towards the top end of Arnstein's (1969) ladder of citizen participation, where citizens are empowered through partnership, delegation of power, and ultimately ownership and control. The impact of Participatory Design can in turn be augmented by Action Research, which seeks transformative change by focusing on local solutions to local problems (Hayes, 2011; MacDonald, 2012; Moreira da Silva, 2019). On the matter of democratic community engagement, Corbett and Le Dantec (2018) suggest that *setting the table* is an important practice whereby stakeholders are assembled and power is distributed amongst them in decision-making processes (p.6). Setting the table has also been used elsewhere as a metaphor for inclusive design (Nicolai, 2019). There are various tried and tested techniques for achieving this type of open, democratic, and inclusive forum, although some of these can be highly specialized and require time. The World Café is an engagement process pioneered by Brown and Isaacs in 1995 (2005), whereby the café metaphor is leveraged to create a space where anybody is able to talk about things that matter to them. Of particular relevance to our work in Guimarães is that the World Café has been effectively used across different cultures, age groups, for various purposes, and in diverse types of communities and organizations, and is not particularly resource intensive.

### **3. *Setting the table***

#### *3.1. Context*

In late September and early October 2019, Fraterna hosted four people on RiseWise secondments from three European countries. Fraterna is a Public Interest Cooperative with Limited Liability, equivalent to a Private Social Solidarity Institution, based in Guimarães, Portugal. It was established in 1999 through the initiative of Guimarães City Council and a group of private entities, with the aim of contributing to the municipality's offer in terms of promoting social development. Fraterna's sphere of intervention includes various actions and services, with a particular focus on children, young people, and seniors.

One of Fraterna's initiatives is the Arca Social, which comprises recreational and training activities aimed at older adults and people who are unemployed. This project aims to fill an occupational void, by promoting personal development and social interaction among its community participants. In partnership with the Associação de Moradores Nossa Senhora da Conceição (AMNSC), the Arca Social hosts training sessions in the use of technological devices, such as computers, smartphones and tablets, and relevant software such as Microsoft Office. These sessions are run by an external facilitator in a room provided by the AMNSC, which has some computers available. There are between 15 and 20 regular participants from the community.

This infrastructure and the pre-existing activities provided an opportune context for interdisciplinary and participatory work within the scope of RiseWise. On the one hand, the conditions for organizing and carrying out any such activities were readily available; on the other hand, this established real-world setting would allow for sustained collaboration with the local community, including the co-creation of design solutions (e.g. to improve the accessibility of apps, accessories, and other forms of technology), the involvement of local students in tech support and training initiatives, and other appropriate measures to foster the digital inclusion of such communities. Staff from Fraterna and the University of Minho therefore decided to organize activities that aligned the interests of those people involved in the Arca Social training sessions with the broader objectives of the RiseWise project. The agreed focus was on taking an interdisciplinary approach to digital inclusion, aimed principally but not exclusively at older

women and those in vulnerable situations, in line with calls for academia to address complex societal challenges (Wowk et al., 2017).

### 3.2. *Two communities*

This work brought together two distinct communities, which can be broadly distinguished as being academic/institutional and non-academic/non-institutional. The former comprised members of the RiseWise project who were on secondment and who were based at the University of Minho, as well as other University of Minho researchers and Fraterna staff. Although not everyone in this group was part of RiseWise, for brevity and clarity they shall be referred to as RiseWisers in this chapter. The latter comprised local community members of the Arca Social activities, some of whom (but not all) participated in the training sessions in the use of technological devices. Participants in these activities had low digital literacy and, in line with the focus of the RiseWise project, were predominantly older women. However, it was decided that all people who regularly take part in the Arca Social activities would be invited, to maintain the natural dynamics and symbioses; for example, several women usually attended these activities with their husbands. This second group, henceforth referred to as Residents, was recruited through Fraterna by its staff and the Arca Social activity facilitators. Written informed consent was obtained from all Residents prior to any data collection.

### 3.3. *Participatory engagement framework*

The challenge of this work was two-fold: first, to encourage collaboration across the different disciplines and levels of experience amongst the RiseWisers; and second, to foster engagement between the RiseWisers and the Residents, which would generate meaningful and fruitful outcomes for both communities. Crucially, there was only a short timeframe in which all stakeholders would be present in Guimarães to complete the work. In order to achieve the desired efficient and empathic participatory process, a framework comprising multiple relationship-building stages was designed. This framework is illustrated in Figure 1, with the stages involving only RiseWisers represented in red and the stages involving both communities represented in purple.

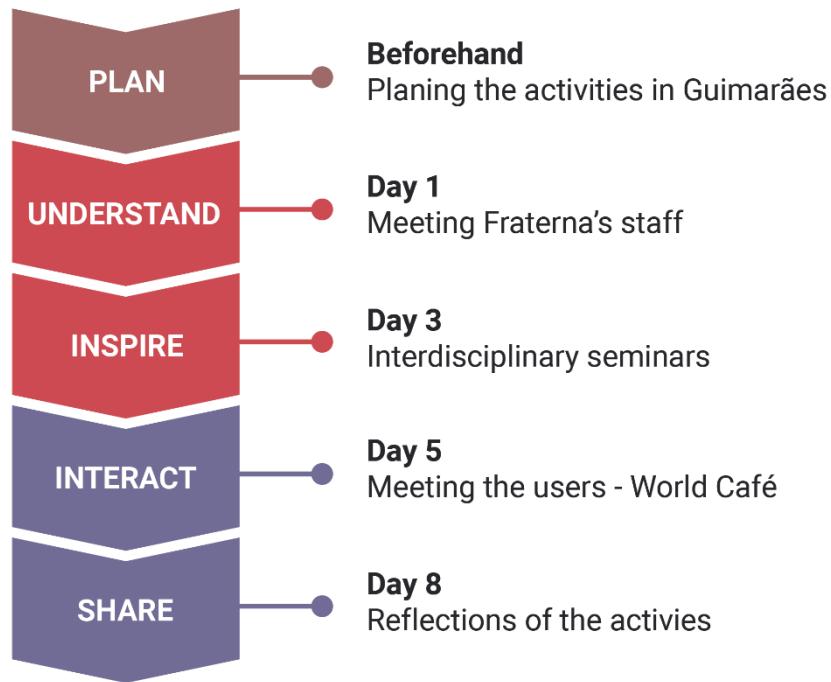


Figure 1. Participatory engagement framework with stages and timing

**PLAN:** The preparation of these activities began between May and July 2019, a few months before the planned secondments. At this point, it was known that several RiseWisers intended to be seconded in Guimarães, between September and October 2019. During this planning phase, the four-stage participatory engagement framework described here was developed by AB and PT and reviewed by SMB and ARM. AB and PT discussed possible topics for an inspiration workshop around different ways of empowering women with disabilities and made the necessary arrangements for the planned activities. This stage involved RiseWisers only.

**UNDERSTAND:** One preliminary visit to Fraterna helped to gain an overview of its operation and to inform the planning of subsequent stages. During this visit, SMB, NG, FI, and PT met Fraterna staff, familiarized themselves with the space available (e.g. size of the rooms, accessibility of the venue for wheelchair users), and learned about the regular activities hosted there to better understand who might take part in the planned interactions with the local community. This stage involved RiseWisers only.

**INSPIRE:** To provide a shared perspective from which to begin our research, a half-day “inspiration” workshop was held with invited speakers who presented a range of perspectives pertinent to the themes of disability and gender (Figure 2, left). MG and PT gave an introductory



talk about the RiseWise project and the remaining speakers were all women, from different backgrounds and some of whom had disabilities. The themes of the talks and subsequent discussions included: empowerment through design, empowerment through technology, empowerment through social engagement, empowerment through work, empowerment through research, empowerment through policy and legislation, and empowerment through arts and leisure. It was anticipated that this event would help shape and refine ideas for the following stage. This stage involved RiseWisers and invited speakers only.



*Figure 2.* On the left, photo of the Inspire stage; on the right, photo of the Interact stage with RiseWisers and Residents

**INTERACT:** The first participatory interaction between RiseWisers and Residents took the form of a World Café at Fraterna. The familiarity of this space to Residents made it particularly appropriate and the available rooms were set up so that participants were seated around tables as recommended (Brown et al., 2005), to create an environment that encouraged open and meaningful conversations. After written informed consent was obtained from the Residents, they were asked to fill in a brief questionnaire about their demographic and background information. The 21 Residents were arranged into four groups of four to five people and each group was assigned to a table, where they would remain for the duration of the World Café event (Figure 2, right). The RiseWisers were assigned either the role of Reporter or of Listener. The Reporters (AB, RA, BD, PT) were responsible for asking the questions, facilitating discussions amongst the participants, taking notes (either in English or Portuguese), and reporting back to their assigned Listener. The Listeners (SMB, NG, FI) supported the Reporters and ensured the discussions were kept on topic, suggesting additional questions and prompts when appropriate. In addition to these roles, there was a Photographer (MO), who moved between tables to take photos of the discussions, and a Timekeeper (ARA). The RiseWisers were

split into four teams comprising a Reporter and a Listener (except for one group), each of which was responsible for one of the following discussion topics relating to technology use: (a) current use of mobile phones and tablets, (b) dreams and aspirations, (c) relationship with ICT, and (d) support. An overview of RiseWisers' roles and distribution during the World Café is provided in Figure 3.

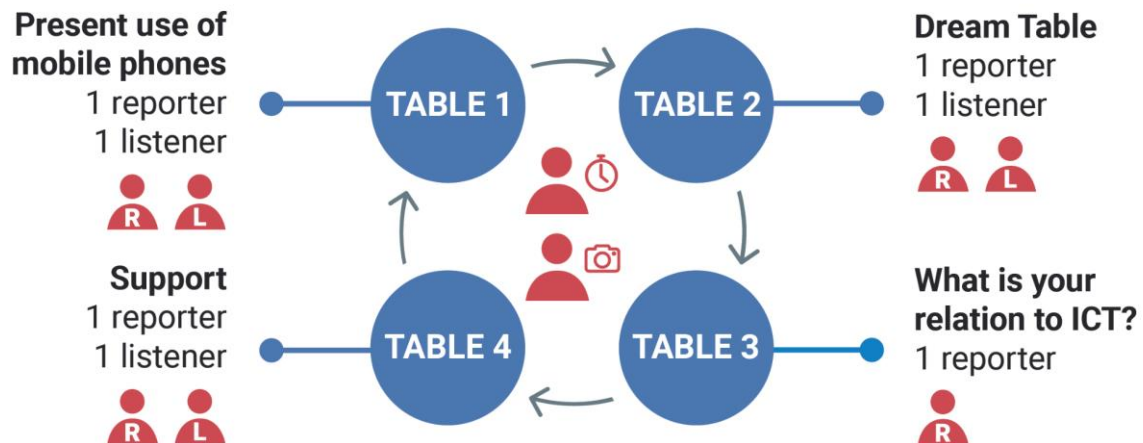


Figure 3. World Café plan and RiseWisers' allocated roles

Residents remained seated at their group's table, while the RiseWisers rotated around each table sequentially. Upon arrival at a table, the Reporter had approximately 2 minutes to introduce their topic of discussion and present a summary of discussions from tables they had visited previously. The group then had 15 to 20 minutes to discuss the topic, following a topic guide to stimulate initial conversations. This process was repeated four times, so that every Reporter-Listener team visited each table and all four Residents' tables discussed all four topics. Table discussions were audio-recorded (with prior consent from each Resident) by the team Listener, for use by the RiseWisers for data transcription and analysis purposes only.

**SHARE:** In the following days, the RiseWisers had a few work sessions to collate and analyse the data gathered during the previous stage. ARA, RA, SMB, NG, FI, and PT took a reflexive thematic analysis approach (Braun & Clarke, 2006) by carefully reading and critically discussing the data, then identifying key themes through inductive coding (Figure 4, left). Through this process, four strategic areas of intervention were identified for subsequent interventions. These results are beyond the scope of this chapter and will be reported elsewhere.



Figure 4. On the left, photo of the data analysis session; on the right, RiseWisers presenting the outcomes of the work at Fraterna

ARA, RA, SMB, and PT re-visited Fraterna to share and discuss these results with the Residents (Figure 4, right). This was an informal and celebratory event, which began with a presentation by the RiseWisers, followed by feedback from the Residents, and ended with a tea party involving everyone. This iteration with the Residents helped to validate the findings and inform the planning of future interventions that would be meaningful to them and that would also continue to build the relationship between Fraterna and the University of Minho. These results are beyond the scope of this chapter and will be reported elsewhere.

**Other:** There were final in situ meetings amongst the RiseWisers to reflect on the outcomes of the secondment and to discuss directions for future work. The continuation of this work was cut short by the Covid-19 pandemic at the start of 2020, which made any in situ collaboration between RiseWisers and Residents untenable. Further meetings amongst RiseWisers were held through videoconferencing and focused mainly on dissemination of results. A number of shared online documents were also created, to allow discussions and iterations of this work.

#### 4. *Capturing the RiseWisers' experiences*

The framework and associated work described above were evaluated by the RiseWisers, using a questionnaire designed specifically for this purpose by AB, ARA, SMB, and PT. A questionnaire approach was deemed most appropriate for three key reasons: first, it would allow RiseWisers to respond easily, in their own time and place; second, even though the questionnaire was written in English, RiseWisers were encouraged to respond in the language of their choice (i.e. English, Portuguese, Italian, or Spanish); third, the questionnaire permitted a certain degree of

anonymity and it was anticipated that this would encourage RiseWisers to be candid about their experiences. The questionnaire was created in Google Forms and comprised three main sections: (i) background and expertise of the respondent, (ii) reflections on the activities carried out, and (iii) impact of this experience on subsequent work. The questionnaire was based on multiple choice questions, some of which were supplemented by open-ended questions where respondents could explain their previous answers.

The responses were collated and analysed by AB and PT. Given the small sample size, responses to multiple choice questions were summarised in frequency tables and no further statistical analysis was performed. The qualitative material in the open-ended responses was coded independently, then these codes were discussed and refined in data analysis meetings until no new codes were identified. A descriptive summary was developed based on these findings, to provide explanation and a deeper understanding of RiseWisers’ experiences. The results are reported below.

4.1. *RiseWisers’ characteristics*

The RiseWisers group comprised 11 people, all of whom completed the evaluation questionnaire. Their areas of expertise included four people from design backgrounds, one from architecture, one from adapted physical activity and technology, one from ICT, one from computer science, one from human-computer interaction, one from information sciences, and one from social integration. Table 1 summarises the RiseWisers’ characteristics in terms of occupation, previous experience of collaborative work, and previous experience of community-based research.

Table 1. Summary of RiseWisers’ characteristics

<b>Occupation</b>	<b>Number</b>
Senior researcher	4
Junior researcher	1
Researcher in training	2
Practitioner	1
Other	3
<b>Previous experience of collaborative work</b>	<b>Number</b>
Yes	9
No	2
<b>Previous experience of community-based research</b>	<b>Number</b>
Yes	6
No	5

Of the nine people who had previous experience of collaborative work, six reported collaborating within their discipline or field of work, seven had done multidisciplinary or interdisciplinary collaborations, three had collaborated in a new field of research, seven had participated in non-academic collaborations such as working with members of the public, and one collaborated with NGOs on research. Examples of effective ways in which collaboration had previously been achieved included in-person approaches (e.g. meetings, seminars, workshops, ice-breaker and team-building activities) as well as sustained communication through digital means such as online platforms and instant messaging apps. One respondent mentioned that an initial conversation to allocate responsibilities, plan data access, and manage expectations is key to a healthy professional collaboration.

All six RiseWisers who reported having prior experience of community-based research were involved as a researcher and none reported having experience as a participant in such type of research. Nevertheless, cited methods that had been used for working with members of the public showed the value placed on understanding people’s experiences (e.g. interviews, questionnaires, user evaluations, generative workshops) and establishing empathy (e.g. personas, scenarios, storytelling). One respondent highlighted the importance of conducting such activities in places that are comfortable for participants.

4.2. *Evaluation of the framework*

Three RiseWisers took part in every stage of the aforementioned work. One RiseWiser took part in only one stage of the work (Interact) and the remaining seven took part in three or more stages. These results are summarised in Table 2.

Table 2. Number of RiseWisers who participated in each stage of the framework

Framework stage	Number
Plan	7
Understand	6
Inspire	9
Interact	10
Share	7
Other	8

Results of the evaluation (Figure 5) show largely positive to very positive reactions to each of the stages. There was consensus among the seven, six, and nine RiseWisers who respectively took part in the Plan, Understand, and Inspire stages that these were very useful. In the RiseWisers’ opinions, the Plan stage was fundamental to getting to know each other’s backgrounds and establish common interests, to share expectations, to agree on an agenda, to discuss logistics, and overall to support coordination across disciplines, levels of experience, and geographical distance. The Understand stage was described as valuable to understanding the context of Fraterna, its stakeholders and its users. In particular, RiseWisers mentioned that face-to-face meetings at this stage were important for building strong relationships and extracting meaningful information. They commended Fraterna’s staff for their openness and generosity with their time and resources. The workshops of the Inspire stage were deemed especially stimulating for their multidisciplinary approach, for showing how academia and NGOs can collaborate towards shared goals, and for presenting women’s experiences in their own voice and from a range of perspectives, including women from various backgrounds and women with disabilities.

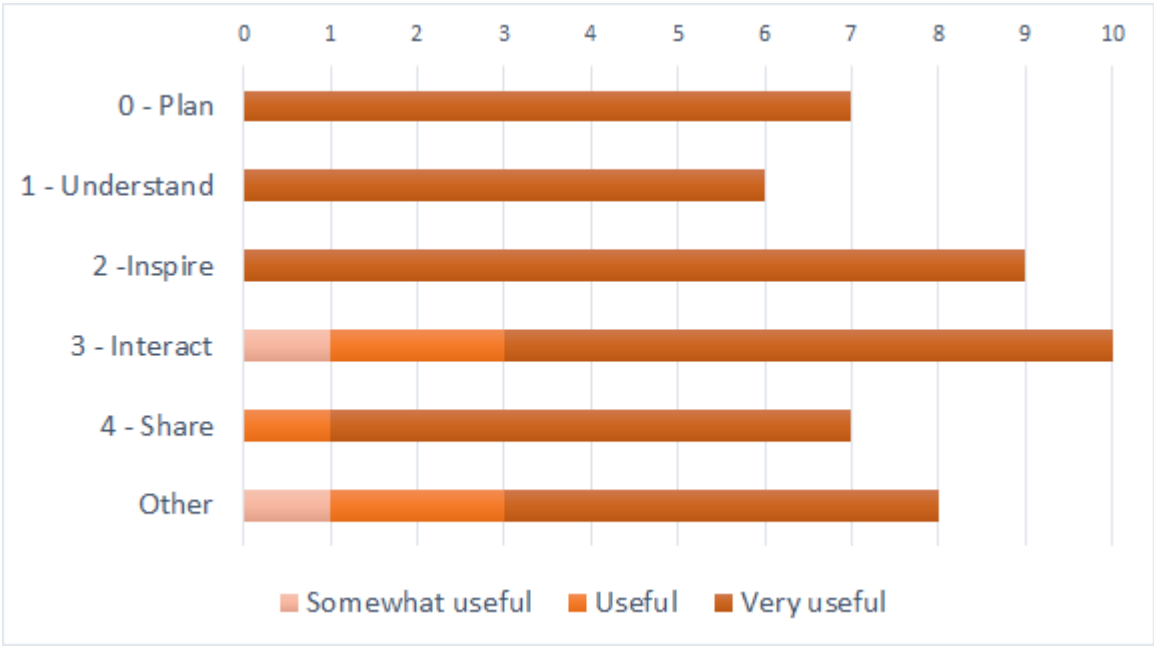


Figure 5. Results indicating how useful RiseWisers rated each stage of the framework

The Interact stage, comprising the first interaction between RiseWisers and Residents, was seen as essential and one RiseWiser even described it as “the whole point”. RiseWisers responses indicated they enjoyed working with other RiseWisers who brought different expertise and cultural inputs to the table, but also found it rewarding to hear directly from the

Residents about their experiences, opinions, and concerns. One RiseWiser noted that this activity allowed the Residents to feel that there were people who were motivated to listen to their views and find appropriate solutions for them. The World Café process was perceived as a dynamic technique that generated quite a lot of information in a relatively short period of time. It was effective in ensuring that Residents were actively engaged in the conversations and that all RiseWisers were involved in some way, even if they were not experienced in participatory research. However, several RiseWisers felt that the time allocated for this activity was too little, considering the language barriers and that it was the first time anyone was conducting a World Café. There were some communication difficulties, namely that conversations with the Residents needed to be interrupted so that information could be translated by Reporters (Portuguese speakers) to Listeners (non-Portuguese speakers), which sometimes resulted in difficulties resuming the momentum of conversation with the Residents. Also, one RiseWiser thought that the fast-paced conversations and rotation to new topics without breaks may have been quite tiring for the Residents. The overall success of this activity was attributed to the participants' positive attitude towards the event, which was in no small part due to Fraterna's staff's strong and friendly relationship with the Residents and RiseWisers.

The Share stage was a welcome opportunity to provide feedback to the Residents, providing (in the words of one RiseWiser) a "reality check of what went right or what went wrong during the activities". In their open-ended responses, the RiseWisers noted the Residents enthusiasm and interest in discussing the outcomes of the World Café. It was also observed that despite its ethical imperative, this type of sharing and discussion of results with participants is often neglected by researchers. In fact, such a stage in the framework was identified as a potential contributing factor to ensuring sustained engagement with the community and eventual implementation of solutions. However, another RiseWiser felt that the time allocated for this stage was not enough and suggested there was need for a common debriefing schema to collect data.

Feedback about the activities that fall under the Other stage of the framework highlighted the disappointment that the planned work was interrupted by the sudden occurrence of the Covid-19 pandemic. This meant that no further interactions between RiseWisers and Residents were undertaken, and indeed interactions amongst the RiseWisers were mostly held online. One RiseWiser felt there was a decline in commitment and enthusiasm

once they were no longer able to meet and work together in person. Nevertheless, it was during this phase that reflection, planning and decisions about how to continue the collaboration took place, which ultimately led to the writing of this chapter.

#### 4.3. *Impact on the RiseWisers*

When asked to list up to three benefits or best things and up to three challenges or negative aspects about the work carried out in Guimarães, all 11 RiseWisers provided at least one example for each category. A summary of the main themes to emerge from these questions is presented in Table 3.

*Table 3. Summary of best things and negative things about the work according to RiseWisers*

<b>Best things about the RiseWise work done in Guimarães</b>	<b>Number</b>
Working across disciplines	6
Understanding real-world problems	6
Working with the community	5
Establishing partnerships for future collaborations	4
Productivity and structured approach of the work	4
International collaboration	3
Working with non-academic institutions	2
Diversity and empowerment of community members	2
Learning	2
<b>Negative things about the RiseWise work done in Guimarães</b>	<b>Number</b>
Short duration	5
Unfulfilled plans due to the Covid-19 pandemic	4
Language barriers	3
Disciplinary differences	2
Lack of resources (e.g. human resources)	2
Competing responsibilities (for local RiseWisers)	2
Not enough women with disabilities involved	1
Not enough exposure	1
Transforming academic knowledge into practice	1
Timekeeping when talking with the Residents (World Café)	1

Best things outnumbered negative ones by roughly a third, with 34 and 22 examples given respectively for each. Answers given for best things tended to concern the personal benefits and experiences of the RiseWisers. Understanding real-world problems and working with the community were among the most cited benefits, but nobody mentioned outcomes of the work related to the digital inclusion of older adults. Nevertheless, two respondents mentioned the diversity of the Residents and their empowerment as positive aspects of this collaborative work.



Four RiseWisers praised the structured approach of the work and a resulting sense of productivity. In contrast, negative aspects had a lot to do with the short duration of the work as well as plans being interrupted due to the Covid-19 pandemic. Some communication barriers and disciplinary differences were experienced, but they were not the most prevalent drawbacks mentioned.

When asked whether they felt this collaborative experience had changed the way they did their research or work, eight out of nine responses were affirmative; the other response explained that the experience had served as a “reminder of the local nature of any participatory action”. Examples of new perspectives included enhanced empathy with users and real-world contexts, collaborating with experts beyond academia, and a better understanding of how to conduct their own research project. All respondents (10 responses) felt that the experience of working with researchers from other disciplines in Guimarães had contributed to their professional development and could be useful for future work. Specifically, these responses showed that this had been an opportunity to learn new perspectives, approaches, and methods, and to expand knowledge more broadly (e.g. by working with more experienced researchers).

## **5. *Looking back on our experience***

The aim of this work was to develop an inclusive and efficient way for RiseWisers and Residents to work together in addressing a meaningful real-world challenge. It therefore positions itself within recommended best-practices of interdisciplinarity and external collaboration with decision-makers and end users (Wowk et al., 2017). The RiseWisers were a group of researchers and practitioners from various disciplines, with varying levels of experience, and from different European countries who convened in Guimarães in the autumn of 2019; the Residents were a diverse group of older adults who were regularly involved in training and vocational activities provided by Fraterna, a local NGO partner of the RiseWise project and host to the seconded RiseWisers. This work involved many challenges inherent to working across disciplines and with communities, with the added constraint of a short time frame when all the seconded RiseWisers would be in Guimarães. To address these, a multi-stage framework for participatory engagement was created and used to inform the work carried out in Guimarães. A subsequent

evaluation of the framework showed that each stage was mostly perceived as useful or very useful for the work. RiseWisers' responses suggested that it was a valued and beneficial approach, conducive to long-term relationship-building and feelings of productivity. Interestingly, positive feedback from the RiseWisers focused more on the collaborative process and its personal benefits to them, than on the wider societal impacts of addressing the challenge of digital inclusion of older people. This is in line with evidence that motivational factors are a key benefit of working collaboratively with other disciplines (Siedlok & Hibbert, 2014).

Despite abundant evidence in favour of participatory and user-centred approaches, misconceptions about their costs and logistics often prevent their application in real-world settings (Chamberlain, 2010). Here, we have demonstrated that it is possible to work collaboratively with diverse communities on matters that concern them, using relatively few resources and in a short period of time. Much of the success of this work can be attributed to the involvement of Fraterna as a trusted community mediator. Activities within the participatory engagement framework were planned well in advance with input from Fraterna staff, who were able to advise on the community and thus help to establish an appropriate local problem for which to seek change (Hayes, 2011; MacDonald, 2012; Moreira da Silva, 2019). Fraterna was also instrumental in providing a space that was familiar to the Residents and therefore encouraged candid conversations (Brown et al., 2005). One foreseen challenge for such conversations was the language barrier, given that four RiseWisers did not speak Portuguese and the Residents only spoke Portuguese. Consequently, for the Interact stage, the World Café method (Brown et al., 2005) was adapted so that RiseWisers who spoke Portuguese could act as a bridge between non-Portuguese speaking RiseWisers and the Residents. While this was not entirely successful, in part due to the short amount of time allocated for each discussion, we feel that it can be refined in future iterations of this work.

Reflecting on the work, we have identified some strengths and limitations that need to be considered when interpreting this work. Most notably, and evidenced by the frustrations reported by RiseWisers (see Table 3), we were not able to continue the work as planned due to the advent of the Covid-19 pandemic around the time when the next steps were to be taken. Nevertheless, we argue that the initial work described here constitutes a relevant first step that merits reporting, as it lays out a demonstrably effective process for commencing

interdisciplinary and community engagement. We acknowledge that the RiseWisers were naturally drawn to the ethical argument for inclusion encompassed by the RiseWise project and that about half of this group had some experience of community engagement, which may have been contributing factors in facilitating this process. Additionally, we note that Residents were not directly involved throughout all stages of the framework and, as a result, could not be involved in its evaluation. Instead, the RiseWisers included Fraterna staff who acted as a proxy for the Residents interests in the Plan and Understand stages. Moving forward, we feel that there is scope to further extend decision-sharing between the two communities in future iterations of this framework, following recommendations in the literature (Bratteteig & Wagner, 2014; Corbett & Le Dantec, 2018).

In conclusion, the framework provided structure to the secondments and generated welcome opportunities for continued collaboration. Although RiseWisers reported some challenges related to language barriers and disciplinary differences, these did not prevent fruitful collaborations and an overall enjoyment of the process. It is likely that being together physically and in pursuit of a shared vision, a unique opportunity afforded by our involvement in the RiseWise project, was a fundamental success factor. We believe that our framework represents a significant step towards understanding how to create inclusive and efficient engagement across disciplines and with the community. In doing so, it has the potential to positively advance the relationship between academia, NGOs, and local communities.

## **6. *Looking forward***

The process of working across disciplines and with a local community of older adults was not without challenges, but it was a rewarding and productive endeavour in many respects. The rapidly established engagement between RiseWisers and Residents has laid the foundations for future work involving both these communities, but also created a blueprint for collaborative work with other communities and in other contexts. Continuing the planned work between RiseWisers and Residents will help determine the applicability of this framework for sustained collaboration across disciplines and with the community, and allow it to be refined accordingly. Replication of this work with different user groups and applied to other real-world challenges will help to further establish the framework's value as a mechanism for inclusive and

meaningful innovation. These are challenges we hope to address moving forward. We also hope that the insights we have gained through this experience will encourage others that participatory approaches need not be reserved for specialists or those with an abundance of time in which to conduct their work.

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