



LIFE

Listen. Innovate. Field-test. Evaluate.

***Needs study
Example Interview Guide***

The LIFE methodology has been developed during the ACCRA project by the ACCRA consortium. Please refer to the project's website, www.accra-project.org, if you use any of the materials.



The needs survey was developed for the ACCRA project. It is tailored to the robots and use cases of this project.

Guidelines for conducting semi-directive interviews

1) What is an In-Depth Interview?

In-depth interviewing is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a topic.

On average, in-depth interviews last from one to two hours. In ACCRA context, the target should be around 1 hour.

2) What are the Advantages of In-Depth Interviews?

The primary advantage of in-depth interviews is that they provide much more detailed information than what is available through other data collection methods, such as surveys. They also may provide a more relaxed atmosphere in which to collect information— people may feel more comfortable having a conversation with you about their personal life as opposed to filling out a survey. This method is appropriate for dealing with sensitive and personal topics such as loss of autonomy.

3) Responsibilities as an interviewer

- Interviewers should speak the **local language**.
- **Prepare for the interview**
 - o **Set up recording equipment** and the physical space where interviews will take place.
 - o Choose the location of the interview. Ideally, interviews should be conducted in a private location with no outsiders present and where people feel that their confidentiality is completely protected.
 - o Become knowledgeable about the research topic, including anticipating and being prepared to answer any questions participants may have about it.
 - o Be reliable. To get participants to take the interview seriously, you need to demonstrate your own commitment. Arrive on time, equipped with the recording equipment, interview guide, and notebooks. Be both mentally and psychologically prepared to conduct the interview.
- **Interview participants thoroughly**
 - o Obtain informed consent from each participant before the interview.

- Address all questions or topics listed in the interview guide.
 - Ask **follow-up questions** (some of which may be scripted in the interview guide) in order to elicit participants' complete experience related to the research topic.
 - **Probe** participants for elaboration of their responses, with the aim of learning all they can share about the research topic.
- **Document the interview**
- **RECORD the interview** using an audio (or video) recorder.
 - Take backup notes.
 - Observe and document participants' behaviors and contextual aspects of the interview as part of your field notes (for instance: short description of the respondent's apartment or room could be useful to understand their difficulties or level of autonomy).
 - Expand your notes as soon as possible after each interview, preferably within 24 hours, while your memory is still fresh.
- **Interviewer attitude**
- To provide the most detailed and rich data from an interviewee, the interviewer must...
- Make that person comfortable and appear interested in what they are saying.
 - Avoid yes/no and leading questions, use appropriate body language.
 - Encourage participants to elaborate on their answers without expressing approval, disapproval, judgment, or bias. Keep their personal opinions in check.
 - Engage with participants by posing questions in a neutral manner, listening attentively to participants' responses.
 - (Cell phones should be turned off and placed out of view so as not to imply that the participant's testimony is of secondary importance).

4) Write the interview guide

- Prepare a list of questions to be asked of each interviewee.
- Relevant techniques include asking one question at a time, verifying unclear responses, asking open-ended questions (detailed below), avoiding leading questions, and using follow-ups and probes (detailed below).
- Phrase questions so that they are simple to understand.
- To the extent possible, include questions that get the interviewee talking: ask mostly **open-ended questions** – that is, questions that encourage a detailed response rather than brief ("yes," "no," or one-word answers).
For example, do not only ask "Do you think your apartment is safe for you?"; follow it up with "What apartment features do you think makes the apartment unsafe?"
- Use **probes** as needed. These include:
 - Would you give me an example?
 - Can you elaborate on that idea?
 - Would you explain that further?
 - I'm not sure I understand what you're saying.
 - Is there anything else?

Examples of effective probes

Direct questions

- "What do you mean when you say . . .?"
- "Why do you think . . .?"

- “How did this happen?”
- “How did you feel about . . .?”
- “What happened then?”
- “Can you tell me more?”
- “Can you please elaborate?”
- “I’m not sure I understand X. . . . Would you explain that to me?”
- “How did you handle X?”
- “How did X affect you?”
- “Can you give me an example of X?”

Indirect probes

- Neutral verbal expressions such as “uh huh,” “interesting,” and “I see”
- Verbal expressions of empathy, such as “I can see why you say that was difficult for you”
- Mirroring technique, or repeating what the participant said, such as “So you were 19 when you had your first child . . .”
- Culturally appropriate body language or gestures, such as nodding in acknowledgment.

Source : Mack et al. (2005), page 42.

5) Make the initial contact with the interviewee to plan the interview

- a) Introduce yourself and the study;
- b) Explain the purpose of the study (and describe the kind of information to be collected);
- c) Indicate that the interview will be taped (a tape recorder is needed or a note taker);
- d) Provide an estimate of the length of the interview;
- e) Indicate that the information will be **kept confidential**,
- f) Seek **informed consent** of the interviewee (written or documented oral).
- g) Propose some dates and times when the interview might be conducted;
- h) Provide your contact information.

6) Before the interview

- Prepare the interview: set up recording equipment and the physical space where interviews will take place.
- Using a checklist, verify that you have all the equipment (tape recorder, consent forms if not previously done).
- Arrive early at the interview site to set up equipment.
- Test your recording equipment.

7) Conducting the interview

- Greet the participant in a friendly manner to begin establishing positive rapport.
- Introduce yourself
- Briefly go over the purpose of the study and the scope of the interview
- Briefly describe the steps of the interview process (informed consent, question and answer, their questions).
- Give the participant the opportunity to ask questions.
- Obtain informed consent (if not done before).
- Turn on the tape recorder and verify that it is working.

- Verify informed consent orally with the tape recorder on.
- Reconfirm the participant's consent while the tape recorder is still on.
- Conduct the interview according to the interview guide.
 - Start with a question that is important but not too specific (never ask unimportant questions, or seek information that you can get from somewhere else!)
 - Go from one question to the other once the question has been answered to your satisfaction
 - Be prepared to skip questions if they seem redundant
 - Be prepared to ask supplementary questions
 - Be prepared with neutral "probes" (for example: Can you please elaborate?)
 - Have a "catch all" question as your last question (for example: Is there anything else that you would like to add? Or, Do you think that there are other issues/points that I may have missed?)
- End the question-asking phase of the interview.
- Turn off the tape recorder and thank the participant.
- Clarify any factual errors expressed by participants during the interview.
- Thank the interviewee for her time and willingness to share her views

8) After the interview

- **Summarize key data** immediately following the interview. Expand your notes within 24 hours if possible.
- **Debrief** with other field staff (for instance, if the interview is led by professional from the site, they should debrief with the consortium staff in charge of the needs study of this country).
- **Fully Transcript** the interviews
- **Analyze** data
- Write **report**.

1. Example of needs study semi-directive interview guide.

Interview objectives

- Understanding the **context and the way of life** of the person (in order to know what his/her daily activities are and to situate the context of intervention of the robot).
- Identifying **difficulties related to aging and loss of autonomy** (slight or advanced).
- Identifying **needs** in terms of daily activities.
- Getting **early indications of the potential attractiveness of the robot** and its main functionalities.

Interview Guide for elderly

Archival #:	Ex/ WFX1Ho <i>First letter of application (W/H/C), First letter of country name (F/I/N/J), Type of respondent (X, Y, Z), Number of respondent (1 to 10), Housing (Ho/Nu/Se)</i>
Application:	<input type="checkbox"/> Walking <input type="checkbox"/> Housework <input type="checkbox"/> Conversation
Country:	<input type="checkbox"/> France <input type="checkbox"/> Italy <input type="checkbox"/> Japan <input type="checkbox"/> Netherlands
Type of Respondent:	<input type="checkbox"/> X Professional caregiver <input type="checkbox"/> Y Informal Caregiver <input type="checkbox"/> Z Elderly
Respondent #:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 <input type="checkbox"/> 22 <input type="checkbox"/> 20 <input type="checkbox"/> 23 <input type="checkbox"/> 24 <input type="checkbox"/> 25 <input type="checkbox"/> 26 <input type="checkbox"/> 27 <input type="checkbox"/> 28 <input type="checkbox"/> 29 <input type="checkbox"/> 30 <i>Respondents are identified through a number from 1 to 30 (as there are 10 elderlies, 10 professional caregivers and up to 10 informal caregivers per country/appli)</i>
Site:	
Interviewer:	
Date:	
Start:	ex/ 10:00 am
End:	ex/ 11:10 am
Elderly	<input type="checkbox"/> Yes <input type="checkbox"/> No
GIR	<input type="checkbox"/> GIR 4 <input type="checkbox"/> GIR 5 <input type="checkbox"/> GIR 6
Age	<input style="width: 200px; height: 20px;" type="text"/>
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female
Living condition	<input type="checkbox"/> Home <input type="checkbox"/> Senior residence <input type="checkbox"/> Nursing home
Informal Caregiver	<input type="checkbox"/> Yes <input type="checkbox"/> No More details:

Professional assistance / week	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Nurse <input type="checkbox"/> Nursing auxiliary <input type="checkbox"/> home helper <input type="checkbox"/> social worker <input type="checkbox"/> Meal delivery service <input type="checkbox"/>
Observations	

Hello. As part of a European research project, we carry out research on the seniors 'needs linked to aging and the difficulties elderly people encounter in their daily activities. The purpose of this interview is that you speak as freely as possible. Do not hesitate to say whatever comes to mind. Everything interests me. This interview is confidential, I will treat this information anonymously. To allow me to be more attentive, I will record our interview.

Do you have any questions before starting the interview?

If that's okay, let's start.

Life context

1. Can you describe in a few words your home/ the place where you live?

Probes:

- What is the surface?
- Are there steps in the apartment?
- Are there multiple floors?
- Are there carpets or obstacles on the ground?...

2. Is your housing suitable for the difficulties you are experiencing as you get older?

Probes:

- Is it easy to get around?
- Is it suitable for the everyday life activities such as dressing, making your toilet, preparing food, etc.?
- Why?

3. Could you describe to me how you spend your days, in general?

Probes:

- **Let's start in the morning:** what do you do early in the morning? And then? Tell me the whole course of your morning.
- **How is the time of the meal?** Who chooses the menu? Who prepares the meal: is it you or someone else? Do you eat alone?
- **What do you do after the meal? And during the afternoon?** What else do you do in the afternoon?

- What do you do during the evening?

Home care

4. Do you receive help from professional caregivers or relatives to certain daily activities ?
5. (IF YES) Could you describe the help you get from professional caregivers or relatives to do certain daily activities?

Probes:

- Who is helping you?
- How many hours a day or a week do you receive help? Which type of home care?
- For which activities do you receive help?
- What does this caregiver do for you or with you?
- Would you like to get help for other things?

Daily activities

We're now going to talk about the daily activities that you've talked about, describing your days.

6. Do you have difficulty to achieve some of these activities?

Probes:

For example, in terms of meals, communication with family or friends, leisure activities ...

Get back on some of the activities mentioned if the person does not speak about them naturally.

- Does aging make certain everyday actions difficult? Or prevents you from doing certain things?
- Are there things you need to do but you have trouble doing?
- Are there things you would like to do but are difficult for you?
- What are your main difficulties?

7. What do you currently do to solve those issues?

- a) Do you ask a care worker/friends/family to help you? (If so, with what do they help you with? And how do they help you?)
- b) Do you solve your issue by using specific equipment? Which equipment? How?
- c) Did you change your Lifestyle? (for instance, to avoid this difficulty).
- d) Do you have any other strategy to solve or avoid this issue? Could you describe it?

We are going to talk more specifically about your daily activities.

8. At the meal level, do you have any difficulties? What are they?

Probes:

- Do you always think of eating or drinking during the day?
- Do you need advice on meals and what to eat to feel good and age well?
- Do you need help to prepare the meal?
- Do you eat and drink alone? Do you need help to eat or drink?

9. (IF YES) What do you currently do to solve those issues?

- a) Do you ask a care worker/friends/family to help you? (If so, with what do they help you with? And how do they help you?)
- b) Do you solve your issue by using specific equipment? Which equipment? How?
- c) Did you change your Lifestyle? (for instance, to avoid this difficulty).
- d) Do you have any other strategy to solve or avoid this issue? Could you describe it?

10. Do you have difficulty in identifying if some of your fridge's products are outdated?

11. Do you ever forget to dress up in the morning and stay in your pajamas / nightgown? How do you think about it and not forget it?

12. Do you like taking care of yourself and of your physical appearance? Do you like to dress, perfume, exercise, etc.?

13. Do you practice physical activities or do you think it useful to do physical activities?

14. Do you need advice on how to do physical activities that are right/adapted for you and your situation?

15. Do you often feel too cold or too hot during the day or during the night? Do you have difficulties in adapting your clothes to seasons and temperature? Could you describe your difficulties?

Probes:

- Do you adapt your clothing to room temperature? or is it difficult for you?
- Do you often keep the clothes you put on even you are cold or hot?

16. (IF YES) What do you currently do to solve those issues?

- a) Do you ask a care worker/friends/family to help you? (If so, with what do they help you with? And how do they help you?)
- b) Do you solve your issue by using specific equipment (thermometer...)? Which one? How?
- c) Did you change your Lifestyle? (for instance, to avoid this difficulty).
- d) Do you have any other strategy to solve or avoid this issue? Could you describe it?

17. In terms of safety, do you have any needs or concerns?

Probes:

- Have you ever had a fall in your home? If so, how did this happen? Did you manage to get up on your own?
- Do you sometimes fear to fall because there is an obstacle on the ground that you would not have seen? Did that happen to you?
- Do you sometimes fear to forget to turn off the gas, electric plates or a tap? Did that happen to you?
- Do you sometimes fear to forget close the door or the windows?
- Do you have any other fears in terms of safety?

18. (IF YES) What do you currently do to meet this need / to solve those issues?

- a) Do you ask a care worker/friends/family to help you? (If so, with what do they help you with? And how do they help you?)
- b) Do you solve your issue by using specific equipment? Which equipment? How?
- c) Did you change your Lifestyle? (for instance, to avoid this difficulty).
- d) Do you have any other strategy to solve or avoid this issue? Could you describe it?

19. Do you sometimes forget things like taking medicine, eating, drinking or appointments? How do you think about it and not forget it?

20. Do you sometimes lose your keys, glasses or other objects?

21. Do you sometimes have trouble to know what time it is and what day is it? What do you do to get this information?

22. Do you feel rather isolated or surrounded*? (*meaning being affectionate, well looked after, with support around...)

Probes:

- Are you often in contact with your family/friends?
- How do you communicate with your family or loved ones? (Do they come to see you, do you communicate over the phone?)
- Would you like to be in contact with your loved ones more often?

23. Is it difficult for you to call them by phone? Could you describe those difficulties?

24. (IF YES) What do you currently do to solve those difficulties?

- a) Do you ask a care worker/friends/family/neighbour to help you? (If so, with what do they help you with? And how do they help you?)
- b) Do you solve your issue by using specific equipment? Which equipment? How?
- c) Did you change your Lifestyle? (for instance, to avoid this difficulty).
- d) Do you have any other strategy to solve or avoid this issue? Could you describe it?

25. Do you have difficulty in buying things (in shops or via the internet)? Which things (food, clothes, books...)? Why?

26. (IF YES) What do you currently do to solve those issues?

- a) Do you ask a care worker/friends/family/neighbour to help you? (If so, with what do they help you with? And how do they help you?)
- b) Do you solve your issue by using specific equipment? Which equipment? How?
- c) Did you change your Lifestyle? (for instance, to avoid this difficulty).
- d) Do you have any other strategy to solve or avoid this issue? Could you describe it?

27. Do you get help for your shopping? If so, are you satisfied with how shopping is done and with products purchased? Why ?

28. Are you happy with your life? Do you feel you have a fulfilling life (une vie bien remplie) ?

Probes:

- Do you feel good?
- Do you feel autonomous?

- Do you sometimes feel sad or anxious?
- Do you often get bored?

29. (IF YES) What do you currently do when you have such feelings?

- What are you doing to feel better?
- Do you ask a care worker/friends/family to help you? (If so, with what do they help you with? And how do they help you?)
- Do you solve your issue by using specific medicine, activities or equipment? Which? How?
- Did you change your Lifestyle? (for instance, to avoid this feeling).
- Do you have any other strategy to solve or avoid this issue? Could you describe it?

30. Are you anxious or stressed? If so, do you need tips or advices on how to relax?

31. Do you have difficulty in sleeping or resting? What kind of difficulties? How do you manage it?

32. Do you like to recreate and entertain? What do you do as a leisure activity? What else?

Probes:

- Describe your recreational and leisure activities (Reading? gardening? play cards/dominos/Sudoku...? Watching movies? Make sewing, draw, paint, listen or play music, walk? Other leisure activities?)
- Do you recreate and entertain autonomously?
- Do you refuse to perform recreational activities?

33. Do you have difficulty practicing certain recreational and leisure activities that are important to you? Which? Why?

Probes:

- Are you interested in other leisure activities that you do not practice? Which? Why not practice them?
- Would you like to do more leisure activities at home? What types of leisure activities?

34. (IF YES) What do you currently do to solve those issues?

- Do you ask a care worker/friends/family to help you? (If so, with what do they help you with? And how do they help you?)
- Do you solve your issue by using specific equipment? Which equipment? How?
- Did you change your Lifestyle? (for instance, to avoid this difficulty).
- Do you have any other strategy to solve or avoid this issue? Could you describe it?

35. Do you like learning new things? What kind of things? How do you learn? (reading, talking to people, taking lessons or courses, watching TV shows...)

36. Do you have difficulties in learning? Why?

Probes

- Do you learn by yourself? How? When? What?
- Do you need stimulation (from other people? from what else?)
- Do you refuse to learn new things or are you resigned to no longer learning? Why?

37. If you should make a top 3 list of problems related to daily activities, which problems would you put in your top 3?

- Why do you put these 3 issues in your list?

- Do these issues decrease your confidence/self-esteem?
 - Do these issues reduce your independence?
- b) What do you think about the current methods on how these issues are currently resolved?
- E.g. You have difficulties using the phone. You ask a caregiver to help you dial the phone number.

38. What are the most difficult or painful moments of your day or week? What moments do you enjoy the less during the day or during the week?

Describe them?

What could improve those moments?

Probes

- a) How should it be done?
- b) Who could do something for you? What could be done?

39. What are the most enjoyable and pleasant moments of your week? What activities do you enjoy the most during the day or during the week?

Describe them?

What could prolong the enjoyment of these activities?

Probes

- c) What could help you do these activities more often?
- d) How should it be done?
- e) Who could do something for you? What could be done?

First investigation of the interest for a robot (show a short video of the robot)

40. Here is a small robot that aims to help you in everyday life (for example to ... take up the difficulties mentioned by the respondent). What do you think ?

- Would that interest you? Why ?
- What do you like about this idea?
- What do you dislike?
- What should do the robot to make you interested?

41. I am going to give you various functions that the robot could have, for each one, I would like you to tell me whether it would interest you or not and why.

- a) **Under your control or under a the care of a caregiver, the robot could help you in terms of meals.**
- The robot could, for instance, be with you in the kitchen or in the dining room and give advice on meals with ideas of menu for example or even nutritional advice to be healthy and aging well.
 - It could remind you to drink and eat regularly (to mention only if this difficulty concerns the respondent).

Does this sound interesting to you or not?

Probes: Why? What are you interested in? What does not interest you?

What should the robot do to become interesting to you?

b) Under your control or under a the care of a caregiver, the robot could help you avoid dangers and make you feel safer. The robot could, for example:

- Remind you to turn off kitchen fires or baking trays.
- Warn you if the front door or window has remained open.
- It could also detect obstacles on the ground and warn you to avoid falling.
- In case of a fall, the robot could inform your loved ones or a caregiver.

Does that sound interesting to you or not?

Probes: Why? What are you interested in? What does not interest you?

What should the robot do to become interesting to you?

c) Under your control or under a the care of a caregiver, the robot could help you maintain ties with your family and loved ones. The robot could, for example:

- Come to you when you call it and compose for you the telephone numbers of your relatives (at your request).
- Allow you to talk to your loved ones seeing them on the screen of the robot, in an extremely simple way.
- Remind you that you have not spoken to a loved one for a long time.
- Display on your screen drawings of your grandchildren or pictures of your family, sent by your loved ones to the robot.
- Broadcast videos sent to the robot by the family (for example, videos of your grandchildren).

Does that sound interesting to you or not?

Probes: Why? What are you interested in? What does not interest you?

What should the robot do to become interesting to you?

d) Under your control or under a the care of a caregiver, the robot could finally help you to feel good. For example, the robot could:

- Conduct some fun and easy tests to check your state of health and to know your emotional state (to know if you are happy, sad, bored...).
- Inform your caregiver about your state of health and emotional state (with your consent)
- Offer activities you like (*mention leisure activities mentioned by the respondent: soft gymnastics, gardening...*).
- Broadcast music programmed by a caregiver or loved ones: your favorite songs and music.

- Read some books for you, at your request.
- Offer you adapted physical activities, with pictures and videos. The robot would accompany you and encourage you during these activities.
- Help you to relax by teaching you how to better breathe and calm your heart rate.
- Offer games: for example, cognitive games to maintain your memory or games connected with other friends (networked games) within your community (card games, poker, Sudoku, scrabble, etc.). You could play with your friends remotely comfortably installed in your living room / bedroom.

Does that sound interesting to you or not?

Probes: Why? What are you interested in? What does not interest you?

What should the robot do to become interesting to you?

42. In general, what do you think of this robot partner of your daily life?

Probes:

- In positive.
- In negative.
- Why ?
- Would you like to have one?

43. The interview is coming to an end, are there any elements you would like to add?

44. Can you give me the following information?

- Age.
- What was your job.
- Level of studies.
- Family situation.

I thank you for your time.

Your participation will be very useful to me.