

S1: Interview script model

This interview is part of the ongoing research at [institution name]:
[research title]

Researcher: _____
Advisor: _____
Study: _____

Semi-structured interview for [role name].

Note: The interview will be carried out with the support of a spreadsheet, to list the activities carried out and the environments, constructive elements, and equipment used in the emergency department.

Interviewee:
Academic education:
Time working at the institution:
Activity sector:
Interview date:

The interview consists of five questions.

- 1- **What are the activities of [role name] carried out in the emergency department?** What are the precedence relationships between the indicated activities (which activities occur first)? (Insert into a spreadsheet; see example below)
- 2- **The activities indicated in item 1 focus on which building elements, equipment, and environments in the emergency department?** (Insert into a spreadsheet; see example below)
- 3- **Could you please indicate the occurrence of conflicts between activities that occur in the emergency department?** (Insert into a spreadsheet; see example below)
- 4- **Were there any changes in the [role name] procedures due to the care resulting from the COVID-19 pandemic? Which ones?**
- 5- **Would you like to add any other comments?**

Your contribution to the research is of great importance to the quality of this academic work.

Thank you so much!

APPLICATION EXAMPLE:

Below, we present a practical example of how this interview will be conducted. This is a hypothetical case designed to support the respondent's answers. The items listed therein should not be considered in the interview.

After a quick introduction to the study, the interviewer/researcher explains that they have a table in which they will write the items that the interviewee tells them about and that this information can be reviewed and supplemented at any time by the interviewee, as he/she deems. The interviewer (researcher) also undertakes to offer explanations and complementary examples to clarify of the meaning of each point addressed to the respondent.

1 - The interviewer asks the respondent to list the main stages or services of the role that he/she needs to perform. As the interviewee describes the items, the interviewer records the information in the activity list as follows (Table 1):

Table 1. Activity list (big picture).

COD	ACTIVITY LIST	ROLES	PRECEDENTS
...			
48	Storage of cleaning items		
49	Cleaning preparation		
50	Carrying out the cleaning of environments		
51	Cleaning of equipment		
52	Waste disposal		
53	Maintenance of cleaning tools		
...			

2 - The interviewer then invites the interviewee to detail one by one the activities involved in each step or service. As the interviewee lists the activities, the interviewer adds them to the table (Table 2, column 2), assigning a number to each new item (Table 2, column 1). In the following example, the interviewee detailed the service of "performing the cleaning of the building":

Table 2. Activity list (detailed).

COD	ACTIVITY LIST	ROLES	PRECEDENTS
...			
48	Storage of cleaning items	14, 15, 19	
49	Cleaning preparation	14, 15, 16, 17	48
50	Carrying out the cleaning of environments	14, 15, 16	49
5001	Checking if the environment is cleared for cleaning	14.15	
5002	Indicating with a visual warning that the environment is being cleaned	15	48**, 5001
5003	Emptying the bins, removing the bags from the bins	15	48**, 5002
5004	Placing new garbage bags in the bins	15	48**, 5003
5005	Cleaning of support places	15	48**, 5002
5006	Cleaning windows and frames	16	48**, 5002
5007	Sweeping of the floor and walls	15	48**, 5002, 5005, 5006
5008	Replacement of used hygiene items	15	48**, 5002, 5005
5009	Organization of misplaced objects	15	5007
5010	Sealing of garbage and disposal bags	15	5003, 5007
5011	Annotation of records indicating that the environment was cleaned	14, 15, 16	5010
51	Cleaning of equipment	14.17	

3 - The interviewer also asks the respondent to indicate who is involved in each activity. This information is registered in another list, the list of involved roles (Table 3). Once the position/role is entered in the role list, the researcher writes down the code referring to the role in the activity list when the respondent indicates their participation in another activity (Table 2, column 3).

Table 2. Role List.

COD	ROLE LIST
...	
14	Cleaning manager
15	General cleaning services
16	Glass and window frame cleaning services
17	Special equipment cleaning services
18	Cleaning supplier services
19	Waste collection—a large producer
...	

4 - In addition to the roles involved in the activity that is being added at a given moment, the interviewer asks the interviewee to point out which activities precede this one, that is, what activities must occur before the activity is carried out properly. They can either be activities already listed by the respondent or other activities that have not yet been listed or which belong to another stage/service.

If these previous activity options have not yet been listed, it is up to the interviewer to indicate a temporary identifier, as shown in column 4 of Table 2: “48**”, where “**” can be the description of the preferred item that has not yet been registered. When these items are raised in another interview and identified with the specific code, the researcher will update this reference.

5 - At this point in the interview, the interviewer indicates to the interviewee that they have concluded the first part of the survey; presents the table they have just completed based on the interviewee’s notes to the interviewee; and, if they identify any point that deserves attention, makes corrections and additions that they deem necessary.

Steps 1 to 5 allow the research to construct the role list and the activity list and identify the precedence relationships between activities. Having revised the activity list and the list of components of the emergency room (previously prepared by the researcher based on the analysis of design documents and inventories made available by the institution. See example in Table 4), it is possible to start step 6. The following steps aim to relate the activities to the built environment.

Table 3. First-aid component elements list.

COD	COMPONENT ELEMENTS LIST
...	
3000	Emergency room
3001	Observation room
3002	Isolation room
3003	Emergency room
3004	Trauma room
3005	Drug preparation room
...	

6 - The interviewer asks the interviewee to inform them which items from the list of emergency room components are involved in each activity indicated by the interviewee. In this way, the aim is to establish an affiliation between activities and the emergency room environment. The interviewer also requests that the interviewee point out the type of impact observed for each activity (the impact options will still be confirmed in the systematic review of the literature and in negotiations with the University Hospital design team during the preparation of the first pilot design) (Table 5).

To illustrate this relationship, the interviewer can offer the following example: the glass and window frame cleaning service has a direct impact (3) on the glass and frame when cleaning them; can have an unwanted effect (2) on the floor and wall if the cleaning fluid drips and splashes; and it can have an indirect effect (1) on the handling of medication, as this activity can be temporarily interrupted depending on the products used or the location of the window.

Table 4. Affiliation list.

COD	ACTIVITY LIST	ELEMENTS INVOLVED	IMPACT
...			
50	Carrying out the cleaning of environments		
5001	Checking if the environment is cleared for cleaning	3000	1
5002	Indicating with a visual warning that the environment is being cleaned		
5003	Emptying the bins, removing the bags from the bins		
5004	Placing new garbage bags in the bins		
5005	Cleaning of support places		
5006	Cleaning windows and frames		
5007	Sweeping of the floor and walls		
5008	Replacement of used hygiene items		
5009	Organization of misplaced objects		
5010	Sealing of garbage and disposal bags		
5011	Annotation of records indicating that the environment was cleaned		
...			

7 - The interviewer asks the interviewee to indicate the occurrence of conflicts between activities that take place in the emergency room. The interviewer records this information in a simple list, indicating the conflicting activities in each line. The interviewee can use the available list of activities to help describe their relationships.

Note that as the lists will be complemented with each interview, the first interviewees may be consulted again at the end of the sequence of scheduled interviews to confirm the indication of any occurrences made without the support of the more complete list of activities. This second consultation is conditional upon the identification of any remaining doubts at the end of the mapping task.

8 - The interviewer asks the interviewee, "Was there any change in cleaning procedures due to the care resulting from the pandemic?" and, if so, "Which ones?"

9 - The interviewer asks the interviewee, "Would you like to add any other comments?"