

Occupant behaviour in residence buildings

Hi!

I'm Klaudia Penkala, an architecture student at Politecnico di Torino. This questionnaire was developed as part of my master thesis project and aims to investigate the behaviors and habits of the occupants in the Italian domestic context. The questionnaire is completely anonymous and the result will be used only for statistical analysis.

The questionnaire takes about 15-20 minutes of time.

If you have the possibility, ask to fill in the questionnaire by other family members (children can also participate under your supervision).

Thank you so much for your time!

Klaudia

There are 69 questions in this survey

*

1 [1]

Which activity did you perform before filling the survey?

*

Please choose **only one** of the following:

- Sleeping
- Relax/reading/watching TV
- Desk work, writing, typing
- Eating
- Bathroom activities
- Light housework (cooking, ironing, etc.)
- Heavy housework (house cleaning, painting, etc.)
- Running, sports
- Walking
- Prefer not to answer
- Other

2 [1.1.]

Please, specify which activity you performed before:

*

Only answer this question if the following conditions are met:

° ((1.NAOK == "11"))

Please write your answer here:

Individual preferences

In this section, you will be asked about your individual preferences regarding some indoor climatic parameters.
To answer these questions you have to choose only one answer per line, the one that best represents your level of preference.

3 [2]

How important are the following to you?

*

Please choose the appropriate response for each item:

	Very unimportant	Unimportant	Slightly unimportant	Neutral	Slightly important	Important	Very important	I don't know
Not being too cold or too warm	<input type="radio"/>							
To have fresh air	<input type="radio"/>							
To have good lighting condition	<input type="radio"/>							
Absence of noise	<input type="radio"/>							
Absence of drafts	<input type="radio"/>							

4 [3]

Please indicate how much do you agree or disagree with the following statements:

*

Please choose the appropriate response for each item:

	I strongly disagree	I disagree	Neutral	I agree	I strongly agree	I don't know
"During the winter, I rather feel a little bit too cold in order to have a fresh air"	<input type="radio"/>					
"I rather accept some noise from outdoors to have some fresh air"	<input type="radio"/>					
"I rather feel a little bit too cold in order to save some energy costs"	<input type="radio"/>					
"When I open windows I think about higher energy costs for heating"	<input type="radio"/>					
"I rather accept a slightly bad indoor air quality in order to save some energy costs"	<input type="radio"/>					
"My first priority is being comfortable with the temperature and air quality, I don't worry about energy costs"	<input type="radio"/>					
"When I interact with windows and the thermostat, I think about my environmental impact"	<input type="radio"/>					
"When I open the windows, I usually turn off the heating/cooling or lower the thermostat settings"	<input type="radio"/>					

Individual characteristics

In this section, you will be asked for some information regarding your person and any pets.

To answer you have to choose only one answer per question.

5 [4]

How old are you?

*

Please write your answer here:

6 [5]

What is your gender?

*

Please choose **only one** of the following:

- Male
- Female
- Prefer not to answer

7 [6]

Where do you live most of the time?

*

Please choose **only one** of the following:

- North of Italy
- Center of Italy
- South of Italy
- Prefer not to answer
- Other

8 [6.1.]

Please specify where you live:

Only answer this question if the following conditions are met:

° ((6.NAOK == "5"))

Please write your answer here:

9 [7]**Do you have domestic animals?**

*

Please choose **only one** of the following:

- Yes
- No
- Prefer not to answer

10 [7.1.]**Please, indicate how many and what kind of animals you have:**

*

Only answer this question if the following conditions are met:

° ((7.NAOK == "1"))

Please write your answer here:

11 [8]**Do you smoke?**

*

Please choose **only one** of the following:

- No
- Sometimes
- Yes, daily
- Prefer not to answer

12 [8.1.]**Do you smoke also inside the home?**

*

Only answer this question if the following conditions are met:

° ((8.NAOK == "2" or 8.NAOK == "3"))

Please choose **only one** of the following:

- No
- Sometimes
- Yes, always
- Prefer not to answer

13 [8.2.]

If you smoke inside the home, do you open windows to get rid off tobacco smoke pollution?

*

Only answer this question if the following conditions are met:

° ((8.1..NAOK == "2" or 8.1..NAOK == "3"))

Please choose **only one** of the following:

- Never
- Sometimes
- Always
- Prefer not to answer

Social factors

In this section, you will be asked for some information regarding your education, your job, and your family.
To answer you have to choose only one answer per question.

14 [9]

What is your education?

*

Please choose **only one** of the following:

- Upper secondary school
- High school
- Vocational education
- Bachelor
- Master
- Ph.D/ Specializing Master
- Prefer not to answer

15 [10]

What is your job category?

*

Please choose **only one** of the following:

- Free profession (lawyer/doctor/accountant/...)
- Office worker
- Researcher/teacher
- Artist/farmer
- Entrepreneur
- Unskilled worker
- Unemployed
- Retired
- Student
- Other
- Prefer not to answer

16 [10.1.]

Please specify what is your job:

*

Only answer this question if the following conditions are met:

° ((10.NAOK == "11"))

Please write your answer here:

17 [11]

Please indicate the monthly household net income:

*

Please choose **only one** of the following:

- < 500 €
- 501-1000 €
- 1001-2000 €
- 2001-3000 €
- 3001-5000 €
- 5001-7000 €
- 7001-10000 €
- > 10000 €
- Prefer not to answer

18 [12]

How many people live in your house?

*

Please choose **only one** of the following:

- 1
- 2
- 3
- 4
- Other
- Prefer not to answer

19 [12.1.]

Please specify how many people live in your home:

Only answer this question if the following conditions are met:

° ((12.NAOK == "5"))

Please write your answer here:

20 [13]

Do you live with your family?

*

Please choose **only one** of the following:

Yes

No

21 [14]

Do children also live in your house (up to 12 years old)?

*

Please choose **only one** of the following:

Yes

No

22 [15]

Please indicate how many children live in your home:

*

Only answer this question if the following conditions are met:

° ((14.NAOK == "Y"))

Please write your answer here:

23 [16]**Do you contribute personally to energy costs (bills)?**

*

Please choose **only one** of the following:

- Yes
- No
- Prefer not to answer

24 [17]**Who usually controls the temperature settings in your home?**

*

Please choose **only one** of the following:

- Whoever feels uncomfortable changes the settings
- We have different ideas and usually discuss about this
- We decide together (we have the same opinion)
- We usually don't change the settings
- One specific person
- Other

25 [17.1.]**Please, specify who (father, mother, husband, wife...):**

*

Only answer this question if the following conditions are met:

° ((17.NAOK == "5"))

Please write your answer here:

26 [18]

Who usually opens the windows in your home?

*

Please choose **only one** of the following:

- Whoever feel uncomfortable operates the windows
- We have different ideas and usually discuss about this
- We decide together (we have the same opinion)
- We usually don't open the window
- One specific person
- Other

27 [18.1.]

Please, specify who (father, mother, husband, wife...):

*

Only answer this question if the following conditions are met:

° ((18.NAOK == "5"))

Please write your answer here:

28 [19]

Who usually closes the windows in your home?

*

Please choose **only one** of the following:

- Whoever feels uncomfortable closes the windows
- We have different ideas and usually discuss about it
- We decide together (we have same ideas)
- We usually don't close the windows
- One specific person
- Other

29 [19.1.]

Please, specify who (father, mother, husband, wife...):

*

Only answer this question if the following conditions are met:

° ((19.NAOK == "5"))

Please write your answer here:

Dwelling characteristics

In this section, you will be asked for some information about the house (characteristics of the building/apartment) in which you currently live.

To answer you have to choose only one answer per question.

30 [20]

Period of construction of the dwelling:

*

Please choose **only one** of the following:

- Before 1919
- From 1919 to 1945
- From 1946 to 1960
- From 1961 to 1970
- From 1971 to 1980
- From 1981 to 1990
- From 1991 to 2000
- From 2001 to 2005
- After 2005
- I don't know
- Prefer not to answer

31 [20.1.]

Have your building's energy performance ever improved? (ie. window replacement, insulation, boiler change...)

*

Only answer this question if the following conditions are met:

° ((20.NAOK == "1" or 20.NAOK == "10" or 20.NAOK == "11" or 20.NAOK == "2" or 20.NAOK == "3" or 20.NAOK == "4" or 20.NAOK == "5" or 20.NAOK == "6" or 20.NAOK == "7" or 20.NAOK == "8" or 20.NAOK == "9"))

Please choose **only one** of the following:

- Yes
- No
- I don't know

32 [21]**Type of the dwelling:**

*

Please choose **only one** of the following:

- Detached house
- Semi-detached or terraced house
- Apartment in a multi-family building (number of apartments between 2 and 6)
- Apartment in a block of flats (number of apartments greater than 6)
- Other

33 [21.1.]**Please specify the type of the dwelling:**

*

Only answer this question if the following conditions are met:

° ((21.NAOK == "4"))

Please write your answer here:

34 [22]**Dwelling area (m²):**

*

Please choose **only one** of the following:

- < 50 m2
- 51-70 m2
- 71-100 m2
- 101-200 m2
- > 200 m2

35 [23]**Ownership:**

*

Please choose **only one** of the following:

- Owned
- Rented

36 [24]**The configuration of the heating system:**

*

Please choose **only one** of the following:

- Independent
- Central

37 [25]**The type of main heating system:**

*

Please choose **only one** of the following:

- Traditional boiler
- Electric boiler
- Condensing boiler
- Heat pump
- Biomass energy
- Solar thermal system
- Other
- I don't know

38 [25.1.]**Please specify the type of heating system:**

*

Only answer this question if the following conditions are met:

° ((25.NAOK == "7"))

Please write your answer here:

39 [26]**The type of heating terminals:**

*

Please choose **only one** of the following:

- Radiators
- Fan coil units
- Baseboard radiators
- Radiant panels
- Other
- I don't know

40 [26.1.]**Please specify the type of heating terminals:**

*

Only answer this question if the following conditions are met:

° ((26.NAOK == "5"))

Please write your answer here:

41 [27]**Type of heating source:**

*

Please choose **only one** of the following:

- Gas
- Oil
- Wood
- Electricity
- Coal
- District heating
- Other
- I don't know

42 [27.1.]

Please specify the type of heating source:

*

Only answer this question if the following conditions are met:

° ((27.NAOK == "7"))

Please write your answer here:

43 [28]

What is the set-point temperature usually set at the thermostat for heating (°C)?

*

Please write your answer here:

44 [29]

Do you have a cooling system?

*

Please choose **only one** of the following:

- Yes
 No

45 [30]

The type of cooling system:

Only answer this question if the following conditions are met:

° ((29.NAOK == "Y"))

Please choose **only one** of the following:

- Multi-split air conditioner
 Mono-split air conditioner
 Ducted air conditioning
 Heat pump
 Other

46 [30.1.]

Please specify the type of cooling system:

*

Only answer this question if the following conditions are met:

° ((30.NAOK == "6"))

Please write your answer here:

47 [31]

The type of cooling terminals:

*

Only answer this question if the following conditions are met:

° ((29.NAOK == "Y"))

Please choose **only one** of the following:

- Split
- Fan coil
- Radiant panels
- Other

48 [31.1.]

Please specify the type of cooling terminals:

*

Only answer this question if the following conditions are met:

° ((31.NAOK == "5"))

Please write your answer here:

49 [32]

What is the set-point temperature usually set at the thermostat for cooling (°C)?

*

Only answer this question if the following conditions are met:

° ((29.NAOK == "Y"))

Please write your answer here:

50 [33]

Do you have any plants for the self-production of energy?

*

Please choose **only one** of the following:

- Yes
- No
- I don't know

51 [33.1.]

Please specify the type of plants for the self-production of energy:

*

Only answer this question if the following conditions are met:

° ((33.NAOK == "1"))

Please write your answer here:

52 [34]

Do you have a wood burning stove?

*

Please choose **only one** of the following:

- Yes
- No

53 [35]

Presence of a mechanical ventilation:

*

Please choose **only one** of the following:

- Yes
- No

54 [36]

How many of these domestic appliances do you own and use at home?

*

Please choose the appropriate response for each item:

	0	1	2	3	> 3
Dryer	<input type="radio"/>				
Oven	<input type="radio"/>				
Fridge	<input type="radio"/>				
TV	<input type="radio"/>				
Computer	<input type="radio"/>				
Washing machine	<input type="radio"/>				
Dishwasher	<input type="radio"/>				

Occupant interaction with building systems

In this section, you will be asked about your habits regarding the interaction with heating, cooling and ventilation systems.

55 [37]

How difficult or unhandy is it for you to use:

*

Please choose the appropriate response for each item:

	Very difficult	Difficult	Slightly difficult	Neutral	Slightly easy	Easy	Very easy	I don't know how to use them
Thermostat	<input type="radio"/>							
Windows	<input type="radio"/>							
Shading devices	<input type="radio"/>							

56 [38]

How satisfied are you with the following control options in your home?

*

Please choose the appropriate response for each item:

	Very unsatisfied	Unsatisfied	Slightly unsatisfied	Neutral	Slightly satisfied	Satisfied	Very satisfied	I don't know
Thermostat	<input type="radio"/>							
Windows	<input type="radio"/>							
Shading devices	<input type="radio"/>							

57 [39]

If you had to give an overall assessment, how satisfied are you with the control systems in your home?

*

Please choose the appropriate response for each item:

	Very unsatisfied	Unsatisfied	Slightly unsatisfied	Neutral	Slightly satisfied	Satisfied	Very satisfied	I don't know
	<input type="radio"/>							

58 [40]

Fill your typical schedule for the following actions during the weekdays (Monday-Friday):

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Presence within the building (choose the hours when you are usually at home):	<input type="checkbox"/>																							
Use of the lighting system (choose the hours when the lights are usually on)	<input type="checkbox"/>																							
Use of the heating system (choose the hours when the system is usually on):	<input type="checkbox"/>																							
Use of the cooling system (choose the hours when the system is usually on):	<input type="checkbox"/>																							

59 [41]

Fill your typical schedule for the following actions during the weekends and holidays:

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Presence within the building (choose the hours when you are usually at home):	<input type="checkbox"/>																							
Use of the lighting system (choose the hours when the lights are usually on)	<input type="checkbox"/>																							
Use of the heating system (choose the hours when the system is usually on):	<input type="checkbox"/>																							
Use of the cooling system (choose the hours when the system is usually on):	<input type="checkbox"/>																							

60 [42]

In the last 14 days, how often did you use the...

*

Please choose the appropriate response for each item:

	> 3 times/day	3 time/day	2 times/day	1 time/day	3 times/week	2 times/week	1 time/week	< 1 time/week	Never
Thermostat	<input type="radio"/>								
Windows	<input type="radio"/>								
Shading devices	<input type="radio"/>								
Ventilation system	<input type="radio"/>								
Cooling system	<input type="radio"/>								

61 [43]

Do you open the windows even when the mechanical ventilation system is on?

*

Only answer this question if the following conditions are met:

° ((35.NAOK == "1"))

Please choose **only one** of the following:

- Yes
- Sometimes
- Never

62 [44]

Do you open the windows even when the heating device is on?

*

Please choose **only one** of the following:

- Yes
- Sometimes
- Never

63 [45]

Do you open the windows even when the cooling device is on?

*

Only answer this question if the following conditions are met:

° ((29.NAOK == "Y"))

Please choose **only one** of the following:

- Yes
- Sometimes
- Never

Occupant interaction with windows

In this section, you will be asked to describe your typical behavior with windows, indicating all the reasons why you are usually opening/closing windows. For each question/sub-question, you can choose one or more motivations and the related rooms taken into consideration.

64 [46]

Please, indicate your typical motivations when you open the windows (indicate all that apply for every room):

	Living room	Dining room	Kitchen	Bedroom	Bathroom
To let fresh air in	<input type="checkbox"/>				
To get the bad smells out	<input type="checkbox"/>				
To change the indoor temperature	<input type="checkbox"/>				
To let more natural light in	<input type="checkbox"/>				
To enjoy the outdoor environment	<input type="checkbox"/>				
To prevent growth of moulds on surfaces	<input type="checkbox"/>				
To get rid of tobacco smoke	<input type="checkbox"/>				
To get the unpleasant odors from pets out	<input type="checkbox"/>				

65 [47]

I have specific habits related to window opening, in particular, I open windows:

	Living room	Dining room	Kitchen	Bedroom	Bathroom
when I come back home	<input type="checkbox"/>				
when I leave home	<input type="checkbox"/>				
when I wake up	<input type="checkbox"/>				
when I cook	<input type="checkbox"/>				
after a shower	<input type="checkbox"/>				
when I hang out the laundry	<input type="checkbox"/>				

66 [49]

Please, indicate your typical motivations when you close the windows (indicate all that apply for every room):

	Living room	Dining room	Kitchen	Bedroom	Bathroom
It is getting too cold/hot	<input type="checkbox"/>				
It is too windy	<input type="checkbox"/>				
I'm leaving the room	<input type="checkbox"/>				
To reduce the noise level from outdoors	<input type="checkbox"/>				
It gets dark	<input type="checkbox"/>				
To save energy (heating/cooling on)	<input type="checkbox"/>				

67 [50]

I have specific habits related to the window closing, in particular, I close windows:

	Living room	Dining room	Kitchen	Bedroom	Bathroom
when I come back home	<input type="checkbox"/>				
when I leave home	<input type="checkbox"/>				
when I go to sleep	<input type="checkbox"/>				
when I take a shower	<input type="checkbox"/>				

Activities performed at home on the last day**68 [60.0.]****Please indicate the day you are filling out this questionnaire:**

*

Please enter a date:

69 [60]

Please fill the schedule for your activities in last full day (24 hours- from 4 am yesterday to 4 am today) in 15-minutes intervals.

For periods of absence at home, choose activity 9 - "Not present at home".

*

Please choose the appropriate response for each item:

	Sleeping	Toilette/bath	Cooking	Eating	House cleaning	Free/family time	TV/ IT entertainment	Practical work	Not present at home	Other
04:00	<input type="radio"/>									
04:15	<input type="radio"/>									
04:30	<input type="radio"/>									
04:45	<input type="radio"/>									
05:00	<input type="radio"/>									
05:15	<input type="radio"/>									
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15:00	<input type="radio"/>									
15:15	<input type="radio"/>									
15:30	<input type="radio"/>									

	Sleeping	Toilette/bath	Cooking	Eating	House cleaning	Free/family time	TV/ IT entertainment	Practical work	Not present at home	Other
15:45	<input type="radio"/>									
16:00	<input type="radio"/>									
16:15	<input type="radio"/>									
16:30	<input type="radio"/>									
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02:45	<input type="radio"/>									
03:00	<input type="radio"/>									
03:15	<input type="radio"/>									
03:30	<input type="radio"/>									
03:45	<input type="radio"/>									

13/8/2018

Survey@Polito - Occupant behaviour in residence buildings

Thank you very much for completing the questionnaire!

Klaudia

01-01-1970 – 01:00

Submit your survey.

Thank you for completing this survey.