



POLITECNICO
MILANO 1863

USABILITY EVALUATION REPORT

HYPERMEDIA APPLICATIONS

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1 Abstract

This report evaluates the usability of <https://www.unicef.org/>.

This document summarizes the methodology and decisions we took during the evaluation process. Usability evaluation can be broken into two parts: inspection and user testing. These usually assist the client in improving the product's quality by considering two alternative points of view.

2 Introduction

Usability, defined as "ease of use", refers to the efficacy and efficiency with which a user's attempts result in the desired output.

This has an impact on other aspects of the navigation, such as the user's desire to continue visiting and browsing the website. As a result, it must be evaluated as an essential and fundamental component. The analysis is carried out using two complementing methodologies that discover issues that the web site might have, and are called Expert evaluation and User Test.

2.1 Expert Evaluation

Inspection (evaluation made by Usability experts only): Verify that all the Heuristics-based principles are well applied to the product. This requires the experts to examine UX-related aspects of the application and systematically analyze the application in all its aspects.

Each team member reviews the web site independently, using the same predetermined heuristic. Following that, the individual work is merged and examined to provide the most impartial and comprehensive list of flaws with the product.

2.2 User Test

User Test (evaluation made by End user only): The evaluation is based on observations while using the application. The evaluation is made through empirical research. The goal is to uncover actual difficulties that users have when interacting with the application. The evaluation is done by completing a series of predefined tasks, the majority of which involve looking for relevant details on the website. This is useful to simulate the ultimate real experience of the final client, and therefore, determining which experience and opinion the client may have.

3 Expert Evaluation

3.1 General Methodology

Expert evaluation is a technique for assessing a website's usability. It requires each member of the team to evaluate the website independently. In our case we used a checklist of the heuristics properties we wanted to evaluate and scored each item of the list. Finally combining all the results and assigning, to each category of the checklist, the most relevant score and a comment that demonstrates how well the web site has performed in accordance with the principles.

Inspection is very useful since it provides a solid basis for a first general overview of the site, finding strengths and weaknesses, having an initial idea of what modifications should be included by the client in the post-evaluation.

3.2 Heuristics

Heuristics are a set of rules to evaluate the usability of a site.

For our evaluation we have decided to use all the Nielsen Heuristics and all the Mile's Heuristics. While the Nielsen Heuristics are more general and don't focus on any topic, they can be useful to understand how well an application is doing without looking in detail. On the other hand, Mile's Heuristics is perfect for looking in details Navigation, Content and Presentation part of the web site. In the following we will see what each Heuristic means and which property of the web site it will evaluate.

3.2.1 Nielsen Heuristics

H1 - Visibility of system status:

The system should always keep users informed about what's going on, through appropriate feedback within a reasonable time.

Examples of elements that allow us to have a better visibility of the status are process labels, status bars, orientation map of the site and breadcrumbs.

H2 - Match between system and the real world:

The site should use intuitive icons that users can simply recognize from the real world.

An example of this may be using the icon of a letter to indicate the contact us function.

H3 - User control and freedom

Users often choose the wrong system functions and need to leave the unwanted state without having to redo everything but performing tiny changes without restarting it all.

An example is [booking.com](https://www.booking.com) possibility to change vacation period without redo all the previous steps.

H4 - Consistency and standards

Users shouldn't have to wonder what different buttons, icons or actions mean, there should be some conventions or standards to implement that can solve this problem.

An example is the close button always represented as an "X" button.

H5 - Error prevention

A well-designed website should prevent errors from occurring.

This can be done either by eliminating error-prone conditions or checking for them and presenting users with a confirmation option before they commit to the action.

An example is the evaluation of the security level of a password during account creation.

H6 - Recognition rather than recall

The objective here is to minimize the user's memory load by making objects, actions, and options visible. The system should give the user a list of possible choices guiding the user. An example is the list of possible places to go for an internship.

H7 - Flexibility and efficiency of use

The interface should be flexible, supporting both novice and advanced users, and transforming itself depending on the user. There should also be the presence of accelerators, used to speed up interaction. Examples are landmarks.

H8 - Aesthetic and minimalist design

The interfaces of the website should be clear and should contain only relevant content. Aesthetics is useful for achieving this goal. An example is the learn more button on almost every Apple product's page.

H9 - Help users recognize, diagnose and recover from errors

Error messages should be clear and precise. They should also suggest a solution. An example is the “showing results for...” when searching with Google.

H10 - Help and documentation

Help and documentation should be easy to reach. This should be focused on the user's task, presenting a list of concrete steps to help users.

3.2.2 MiLE Heuristics

Navigation/Interaction Heuristics:

- **Interaction Consistency:** pages of the same type should have the same navigation links and interactions capability;
- **Group Navigation-1:** it should be easy to navigate from and among groups of “items”, and within the items;
- **Group Navigation-2:** menus shouldn't create Cognitive Overload;
- **Structural Navigation:** it should be easy to navigate among the “components” (parts) of a topic;
- **Semantic Navigation:** it should be easy to navigate from a topic to a related one in both directions;
- **Landmarks:** landmarks should be useful to reach the key parts of the web site.

Content Heuristics:

- **Information overload:** the information in a page shouldn't be too much or too little;
- **Consistency of Page Content Structure:** pages that present topics of the same category should have the same types of elements;
- **Contextualized Information:** pages should include information that helps users understand where they are;
- **Content Organization (hierarchy):** hierarchical organization of topics should be appropriate for the topic relevance.

Presentation Heuristics:

- **Text Layout:** text should be readable and font size appropriate;
- **Interaction placeholders-semiotics:** textual and visual labels/icons for interactive elements should convey their functional meaning;
- **Interaction placeholders-consistency:** textual and visual labels of interactive elements should be consistent in terms of wording, shape, color and position;
- **Consistency of Visual Elements:** in pages of the same type, visual elements should have the same visual properties;
- **Hierarchy-1:** the on-screen allocation of contents within a page should be appropriate for their relevance;
- **Hierarchy-2:** the on-screen allocation of visual elements should be appropriate for their relevance;
- **Spatial Allocation-1:** semantically related elements should be close to each other;
- **Spatial Allocation-2:** semantically distant elements should be placed distant from each other;
- **Consistency of Page Spatial Structure:** pages of the same type should have the same spatial organization for the various visual elements.

Metrics Used

We decided to adopt a 5-tier model to evaluate the heuristics scores.

The scores are the following:

- **0:** The Heuristic is unsatisfied, and it misleads the user;
- **1:** The Heuristic is unsatisfied, but they don't have a drastic impact on user experience;
- **2:** The Heuristic is partially satisfied: there are weaknesses that don't affect user experience;
- **3:** The Heuristic is satisfied, but it could have been implemented better;
- **4:** The Heuristic is almost totally satisfied in a correct way;
- **5:** The Heuristic is totally satisfied in a brilliant way.

3.2.3 Execution of the Study

Inspection was individually performed on the entire site.

This was done evaluating the selected in heuristics with the marks we agreed, using an inspection table to keep track of the results and additional notes.

Then we merged our results and after a short discussion we arrived at the following conclusions.

3.3 Inspection – Results

3.3.1 Table

The final scores we decided to assign to each heuristic are displayed in the following table. The scoring scale, as previously stated, is set from 0 to 5 (the precise meaning of each value may be found above); in any case, the next section provides a detailed explanation of the criteria we used to assign each score.

Heuristics				Score
Nielsen	Navigation	H1	Visibility of system status	1
	Presentation	H2	Match between system and the real world	5
	Navigation	H3	User control and freedom	2
	Presentation	H4	Consistency and standards	4
	Presentation	H5	Error prevention	1
	Presentation	H6	Recognition rather than recall	3
	Navigation	H7	Flexibility and efficiency of use	3
	Presentation	H8	Aesthetic and minimalist design	3
	Presentation	H9	Help users recognize, diagnose and recover from errors	3
	Content	H10	Help and documentation	1
Mile	Navigation	N1	Interaction consistency	2
	Navigation	N2	Group navigation-1	1
	Navigation	N3	Group navigation-2	0
	Navigation	N4	Structural Navigation	1
	Navigation	N5	Semantic Navigation	2
	Navigation	N6	Landmarks	1
	Content	C1	Information overload	2
	Content	C2	Consistency of Page Content Structure	1
	Content	C3	Contextualized Information	1
	Content	C4	Content organization (hierarchy)	3
	Presentation	P1	Text lay out	4
	Presentation	P2	Interaction placeholders-semiotics	5
	Presentation	P3	Interaction placeholders-consistency	5
	Presentation	P4	Consistency of Visual Elements	3
	Presentation	P5	Hierarchy-1	3
	Presentation	P6	Hierarchy-2	5
	Presentation	P7	Spatial allocation-1	3
	Presentation	P8	Spatial allocation-2	4
	Presentation	P9	Consistency of Page Spatial Structure	5

Table 1: Agreed scores of the heuristics

3.3.2 Scores explanation

H1 – Visibility of system status

Breadcrumbs are only available for specific pages. Determining the page a person is currently on might be difficult, if not impossible. Occasionally, we are directed to a different website with no means to return to the original home page, even after clicking on the main logo.

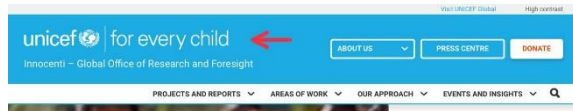


Figure 1: Missing direct link to Home Page



Figure 2: Missing bread crump

H2 – Match between system and the real world

The terminology used is appropriate for the aim of the website; also, the few icons available are intuitive and well-utilized.

All of the links on the page are accompanied with images that help the reader comprehend which subject is being discussed.

H3 – User control and freedom

Many sites without a breadcrumb have no button to return to the homepage. The similar problem exists on the donations page; however, the form allows you to return if you make a mistake.



Figure 3: Back button

H4 – Consistency and standards

Conventions have been fulfilled.

The sole standard symbol is the one on the search function, which is correctly situated and has the appropriate standard representation.



Figure 4: Search icon

H5 – Error prevention

Error prevention is utilized in the donation form but not in the web site for error navigation; yet, the donation page is an example where it's not possible to return.

Clicking on the wrong page may lead to becoming lost on the website. Mistakes are a major concern. Additionally, the support center is disguised in the contact us area.

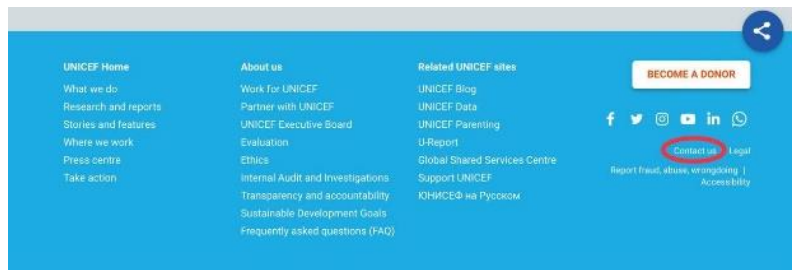


Figure 5: Where to find support center

H6 – Recognition rather than recall

This heuristic is not particularly relevant to this website. The only thing the user can do is type a search into the search bar. This provides suggestions once the first letters to search are input, but it does not save past user queries.

Some pages have a "related topics" section at the bottom that can be used to delve deeper into the topic being searched for.

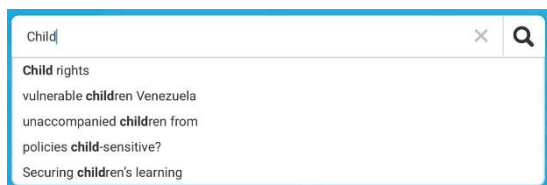


Figure 6: Search bar

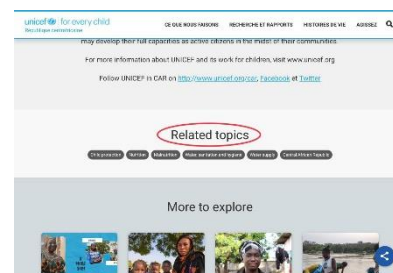


Figure 7: "Related topics" section

H7 – Flexibility and efficiency of use

The website features two key accelerators: the change language button and the high contrast button. The first one is repeated on top of each article, allowing the user to choose the language right immediately. However, not all languages are supported, and not all pages are available in the intended languages.

The accelerator can sometimes become worthless.

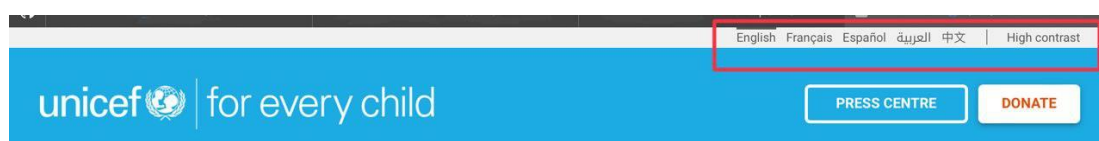


Figure 8: Accelerators

H8 – Aesthetic and minimalist design

The information offered for each issue is essential; the user can go deeper by clicking on several buttons such as *learn more*, *read more*, and *visit the page*. The number of photographs is maybe excessive, but they provide a quick and effective approach to understand the purpose and significance of the themes covered by the website.

H9 – Help users recognize, diagnose and recover from errors

The design in the case of a 404 error is understandable and encourages returning to the home page, which is the proper method to handle the issue. The error page is simple but not much interactive.

The search field automatically changes the input search word to the closest matching term accessible on the page; it would be more useful if it recommended alternatives.

The error detection in the donation form is handled properly.

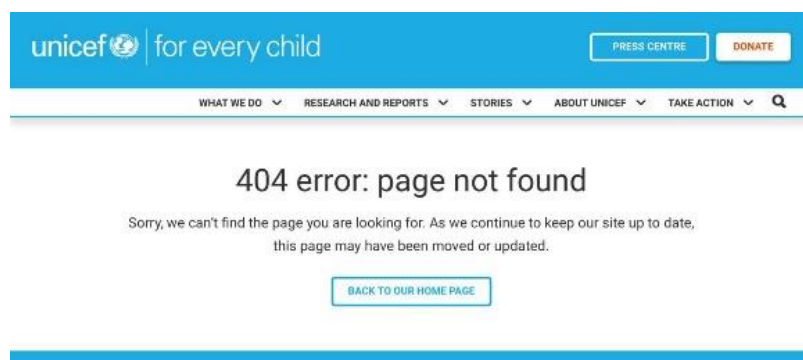


Figure 9: Error Page

Figure 10: Donation form

H10 – Help and documentation

This website contains a form of support center. The problem is that the support center is concealed in the contact us area, making it extremely difficult to locate.

Not really applicable, but there is no way to discover a FAQ area or any page that can help you better use the site or understand a scenario.

N1 – Interaction Consistency

The possible interactions on pages within the same sections are virtually usually the same; nevertheless, they are put in different areas within the pages, causing confusion. The opportunity to make a donation is always available under the 'Stories' -> 'Emergencies highlighted' area, but it is presented in a variety of ways. Some parts, such as "Supply" or "Innocenti" sections, completely alter the structure, much like entering a new website with a different menu bar, links, graphics, and overall layout.



Figure 12: Afghanistan Page



Figure 11: Haiti Page



Figure 13: Yemen Page



Figure 14: Sudan Page

N2 – Group Navigation-1

Items in a group are more easily accessible to one another when using the top bar. However, transferring from one list of items to another is difficult since most lists of items have distinct structures and are typically linked only to the Home Page via an almost inconspicuous link.

N3 – Group Navigation-2

Menus definitely create cognitive overload. In the top bar or in the breadcrumb the list of options is by far more complex than a human can process, creating confusion.

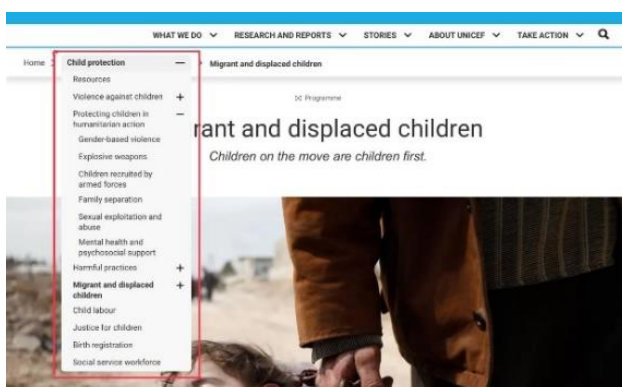


Figure 16: Bread crumb

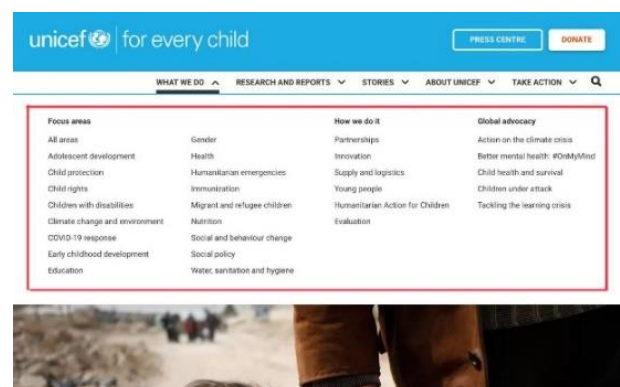


Figure 15: Top bar

N4 – Structural Navigation

The broad menu allows for immediate access to practically all pages; nevertheless, there is no relationship between the many components of the same topic.

N5 – Semantic Navigation

Some pages, such as *child-protection* and */protection/programmes*, provide access to topic-related pages; however, this is not always available and is not always bidirectional.

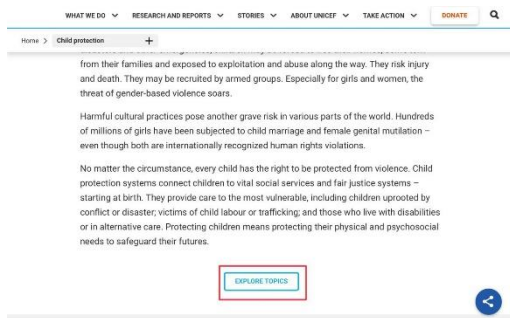


Figure 18: "Explore topics" button

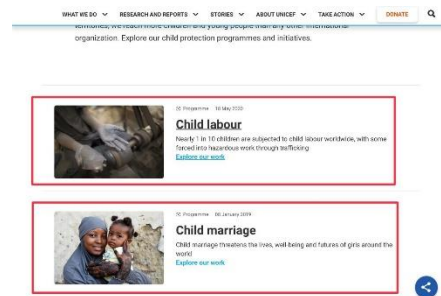


Figure 17: Example of topic-related pages

N6 – Landmarks

Landmarks are generally nonexistent, and those that are present just allow us to return to the home page. We recommend using landmark for all article pages and pages that just provide information.

C1 – Information Overload

The content of the sites (particularly articles) has an appropriate amount of information. The problem is in the menu, which lists all the subpages. It would be beneficial to create groups based on the content of the pages and make them available by links in the page or submenus in the bar; this would reduce the number of information displayed by a significant amount. Furthermore, in the section About *UNICEF* > *Where we work*, all links lead to the same page with various URLs.

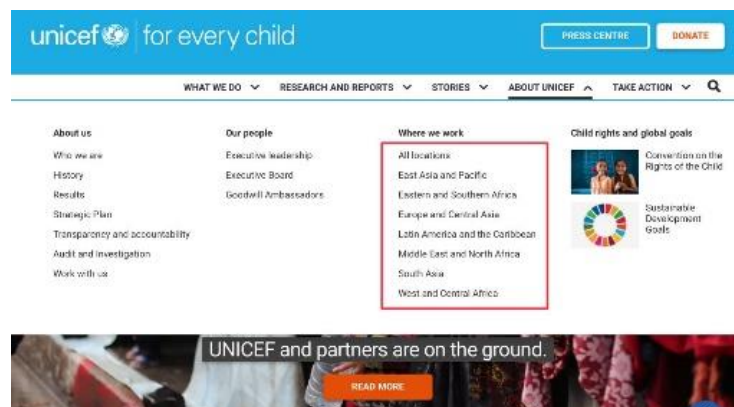


Figure 19: Overload of links

C2 – Consistency of Page Content Structure

Pages on the same topic generally have the same structure, however some pages, such as those in the "How we do it" category, have a drastically different structure. The text and graphic layouts, in particular, have changed. Special note on the "Supply" section: not only is the layout different from the other sections, but the menu bar and the overall structure of the page has been redesigned without regard for the other pages; it almost feels like we are on a different website, with different links and a new top bar. Furthermore, when we click on the main page link, we are redirected to that subpage with no clear way to return to the homepage.

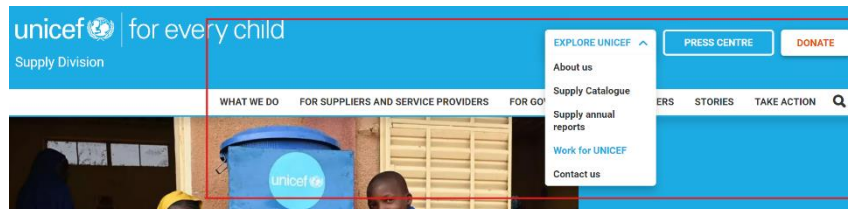


Figure 20: "New" version of top bar

C3 – Contextualized Information

Once on the website, it is difficult for the user to determine which area they are in. The virtually complete absence of breadcrumbs complicates this action even further. The title is the user's only reference to the page's topic.

C4 – Content organization (hierarchy)

The hierarchy is right. The content is arranged correctly, with defined hierarchical levels. The biggest issue is the extensive fragmentation into numerous levels; lowering this number will improve navigation and make the issues more understandable. We would advise shifting the "Global advocacy" section to the "Focus areas" or developing a new one in the main bar.



Figure 21: "Global advocacy" section

P1- text layout

The text size and font are both readable and appropriately used. The most important texts are properly highlighted. The only exception is the home link in subcategory pages, which is almost hidden on the page. Even if the font is readable, the font size is incorrect.

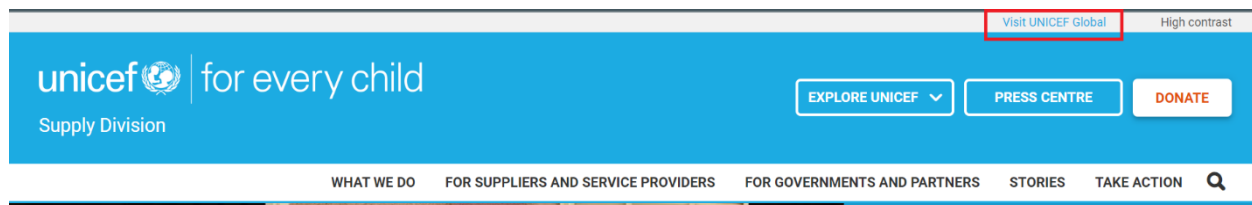


Figure 22: Text size

P2 – Interaction placeholders-semiotics

Icons are almost unused. This makes all the content heavier to see. However, the majority of labels represent the page's title, indicating that they do exactly what they should.

P3 – Interaction placeholders-consistency

Interactive elements are coherent with shape, wording and color and position in all pages.

P4 – Consistency of Visual Elements

Pages of the same type use the same visual elements to convey the same interactions and information. The only exception is the donation form which appears in 3 different type of interaction: 2 types of different button or as a form in the page you want donate to.

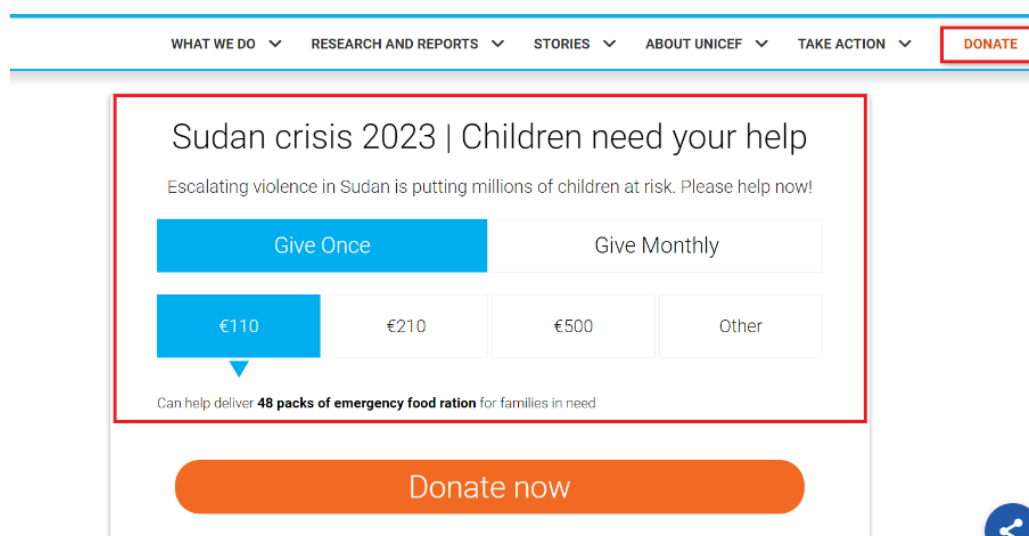


Figure 23: Different type of donation

P5 – Hierarchy-1

Most pages appear to be positioned and scaled according to their importance and relevance, but in others, all elements appear to be highlighted, which means no element is really highlighted. An example of this may be seen in the image below. Also, as previously said, the link to the general UNICEF site on most pages is undervalued and nearly invisible.

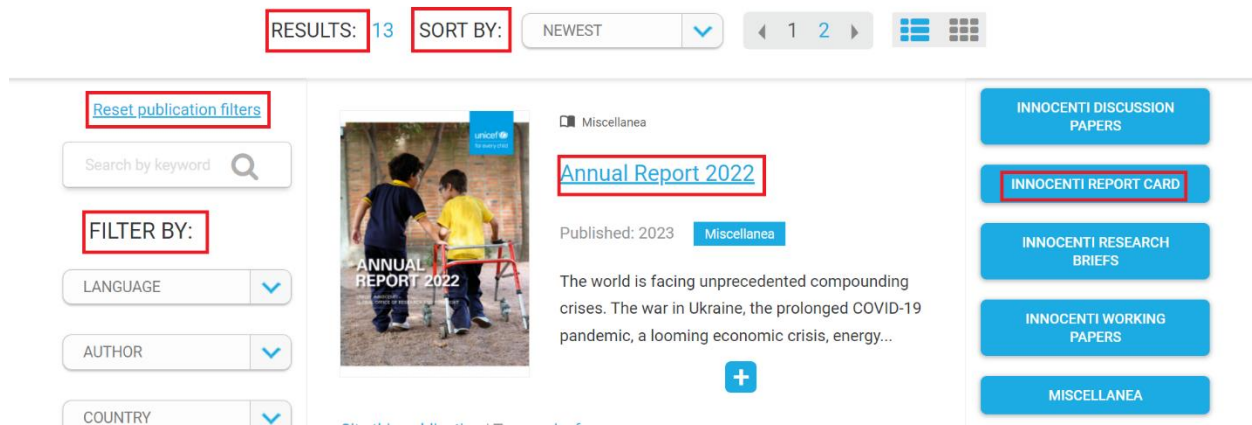


Figure 24: All the highlighted text in the page

P6 – Hierarchy-2

The photos or videos show a clear relevance of the material on the website and appear to reflect very effectively the aims of the page's owners to sensitize people; the boxes, on the other hand, do not reflect a different value of content nor a logical arrangement, but rather feel like a simple list.

P7 – Spatial allocation-1

If we look at the page semantically related elements are close to each other. However, in the top bar this spatial allocation is not respected, leaving elements of the same category and different categories to have the same distance.

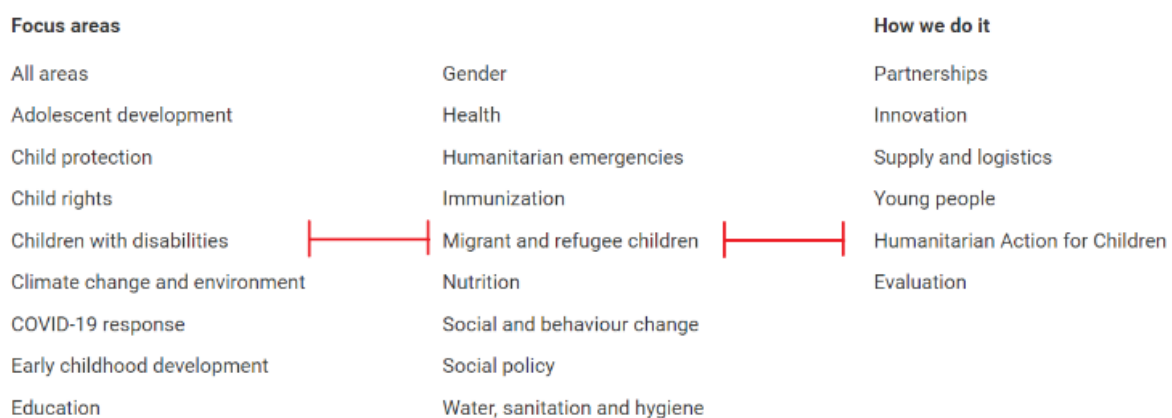


Figure 25: Distance between similar and different elements

P8 – Spatial allocation-2

Different elements are generally positioned with the right distance; the only exception is the link page where all elements are close to each other, and you can't really feel that the elements are different from each other.



Figure 26: Spacing between informations

P9 – Consistency of Page Spatial Structure

Pages of the same type have the same spatial organization for the various visual elements.

Charts with aggregate scores

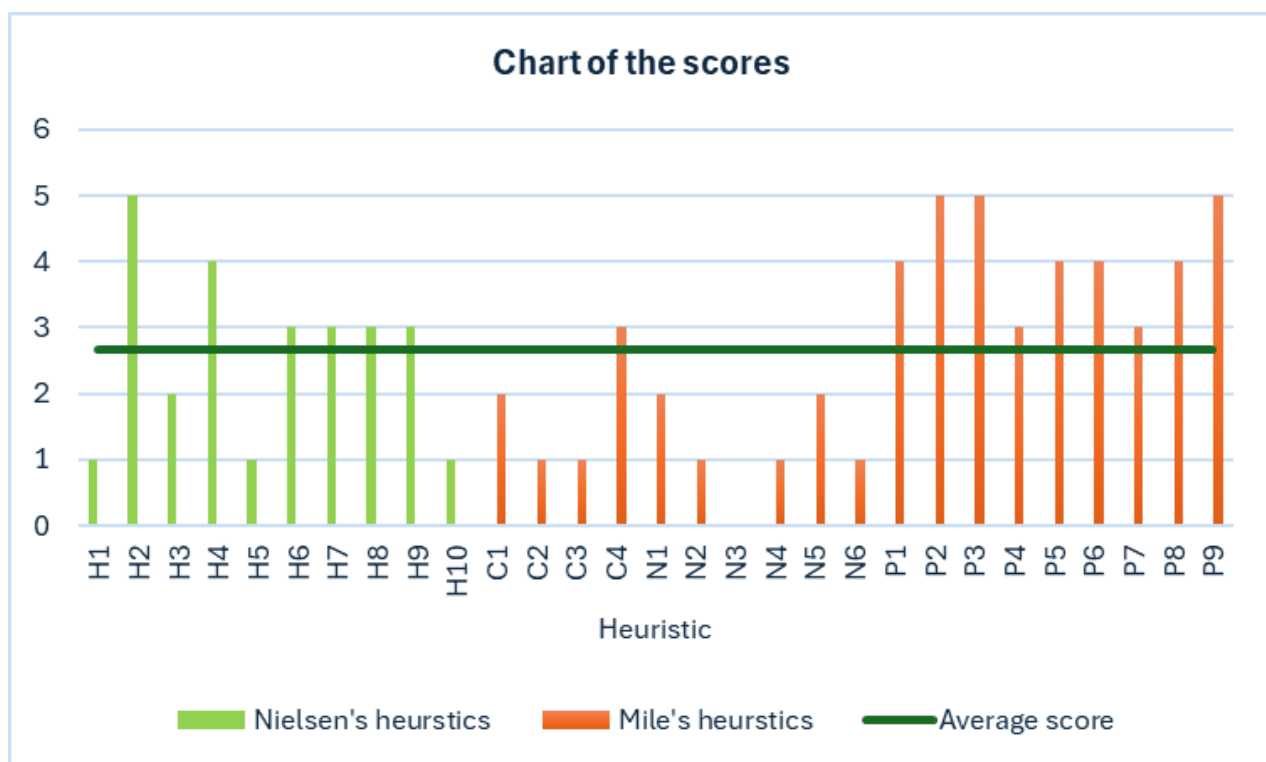


Figure 27: Chart of the aggregated scores of the heuristic

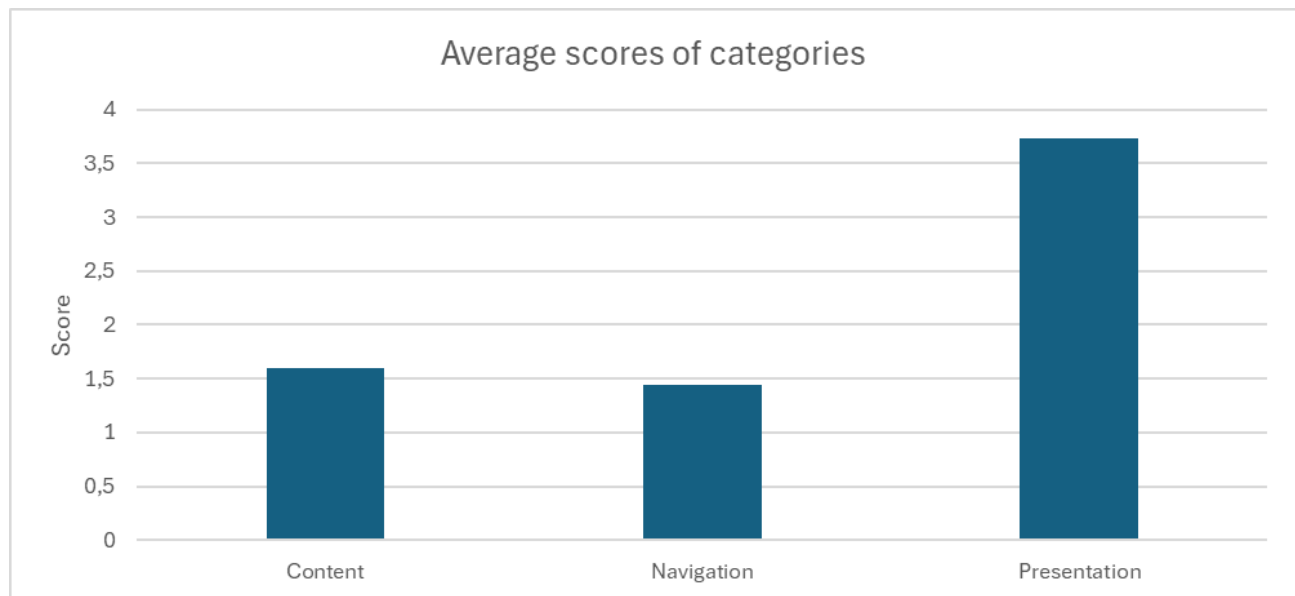


Figure 28: Average scores of every single category of heuristic

3.3.3 Discussion about the results

The average score of our evaluation is 2.66 (Figure 28); the website is overall well done, even if it can be further improved.

In our analysis, the three categories in which all the heuristics are split have been considered in different percentages. We analyzed 29 heuristics: 15 of them belong to “Presentation” category (52%), 9 to “Navigation” category (31%) and 5 to “Content” category (17%).

The website excels in aesthetics, with an average heuristic score of 3.73 in the "Presentation" category. Its intuitive elements (H2), its consistency (H4) and its coherent interaction of elements in the pages (P2, P3) have been particularly appreciated and awarded with an awesome score.

The only aspect of the "Presentation" category that we believe might be improved further is the one dealing with error prevention (H5): in our opinion, they should include the ability to roll back an action because clicking on the wrong page can lead to becoming lost on the site.

In terms of "Content" heuristics, the average score is 1.6; the main strength is the content organization (C4) because the hierarchy is correct, even if the fragmentation of elements in some sections might be managed better.

The biggest problems are that the help documentation page of the website is hidden to the users (H10) and that users have difficulties determining the area they are in due to a lack of breadcrumbs (C3).

Finally, we recorded the lowest average score (1.44) in the *Navigation* category.

We discovered that switching from one item group to another was challenging since they had distinct structures; also, menus cause cognitive overload due to the large number of elements in the lists.

4 User test

4.1 General methodology

Starting from the problems with the website's usability we have discovered, we wanted to determine whether these flaws would also affect the end-user as well, so we used a method known as **User Testing** to confirm (or refute) our findings.

The fundamental goal of user testing is to identify the issues that heuristics may not fully cover or that inspectors were unable to identify during the Expert Evaluation step.

User testing is based on the personal experiences of a carefully chosen sample of users who are representative of the website's target audience.

For each member, 5 participants were selected and then given 5 different tasks to complete on the website while carefully monitored and consensually recorded (both the screen and the face), always without being interfered by us researchers, allowing a better quality of the data. This allowed us to study participants' behavior, facial mimic, and methods of reasoning. After that, a questionnaire and some open questions were used to gather additional data, both in a quantitative and qualitative way.

After integrating all the new collected data with the one coming from our inspection, we have confirmed some of our concerns about the website usability but also gained new insight of new issues that we hadn't discovered.

4.2 Design of the study

User testing has a well-defined approach that must be followed. The primary aspects that needed to be addressed for a correct testing phase are described in the sections that follow.

4.2.1 User selection

The website is intended for a wide variety of people ranging from high school students to adults so it's possible that the number of different kinds of users interested in the website's will be vast and heterogeneous; while people with an age over 65 will be unlikely to use this site to get information we expect that in the following years the average age of the user will go up since more people will use websites to retrieve information.

We identified 20 people who represented the desired targets, making sure that each class had enough participants for the test to represent a statistically significant sample. According to the Nielsen Curve, 5 individuals should be sufficient to identify 85% of problems, and 15 users should be required to identify every issue.

We decided to include two groups of persons in our study:

- 12 Young people, age 17-40.
- 8 Parents of students, age 40-65.

4.2.2 Evaluation criteria

The evaluation criteria are not fixed or predefined but are decided by us evaluators after a discussion. There are some criteria that are more common like success measurement or the completion time, but there is no particular restriction.

In carrying out our own analysis, we adopted:

- Success in completing the task, measured using a straightforward metric: F (failure, wrong answer), P (Partial success), S (Success);
- Time to complete the task;
- Penalty if assistance was requested.

For each task, we set two different time thresholds: for the first one, even if the user succeeded, the success was considered partial (because information should be easily retrieved on an informational website), and for the second one, the execution was halted. We decided to use different thresholds based on the difficulty of each task.

Tester could also request assistance after the first threshold, but a penalty was applied.

4.2.3 Tasks

Users were given the following set of tasks to complete in the same sequence:

- Do a single donation of 73,45€ destined to "KIT EMERGENZA FREDDO" (do not insert credit card numbers).
- Find the number of the state members of the executive board.
- Find the page about nutrition in Afghanistan.
- Find data about Belgium: number of total population and number of total child population.
- Find the top 10 donors in the ranking of the public donors.

4.2.4 Execution

Before Test

The users were given a form with the current task and the questionnaire to be compiled after completing the task. Regardless of the version, each user was given a real scenario in which to operate:

- Young people who are interested in knowing better problems of actuality.
- Adults who want to research and donate to people in emergencies.

During Test

We maintained the following guidelines for the test's execution:

- Assuring users that they were not being evaluated and that there was no need to worry about their results, times or need for assistance, since what we were evaluating was the website usability.
- Encouraging individuals to speak their opinions aloud, whether positive or negative and their reasoning to reach the end of each task.
- Not helping unless request by the user or a certain amount of time was elapsed (after which we could only ask if the user needed assistance).
- Encouraging users to leave negative reviews without concern if they wanted to.

Data was collected through direct user observation, as well as audio and video recordings of the computer screen and camera. After completing each task, the user was required to complete a questionnaire that collected information about the task's clarity and the user's overall experience with them. The goal was to determine whether possible issues could be blamed on the website or if the task assigned was unclear.

After Test

After completing all the tasks, each participant was asked to complete a questionnaire based on SUS (System Usability Scale), DEEP (Design-oriented Evaluation of Perceived Web Usability) and other questionnaires on their overall perceptions of the site's content, comfort of use and exploration, as well as overall satisfaction. Users were asked to rate their level of agreement with each line on a scale from strongly disagree to strongly agree. The responses were gathered using Microsoft Form.

4.3 User test – Results

This subsection is dedicated to the discussion of the *User Testing* findings and the subsequent analysis of the extrapolated aggregated data, which are provided in the form of various charts.

4.3.1 Success rate

The table below illustrates whether each user completed the various tasks successfully. For a clear visualization of the data, each cell contains an **S** (the user completed it), a **P** (meaning partially completed by the user) and an **F** (meaning not completed by the user).

TASK	FF					LL					MF					DP				
	U1	U2	U3	U4	U5	U1	U2	U3	U4	U5	U1	U2	U3	U4	U5	U1	U2	U3	U4	U5
1	S	S	S	S	S	S	S	S	P	S	S	S	S	S	S	P	F	S	P	S
2	S	S	S	S	S	P	S	S	S	S	S	F	S	S	F	P	S	S	S	S
3	P	S	S	P	P	S	P	F	F	S	S	F	P	S	F	F	S	S	S	S
4	S	S	S	S	S	S	S	S	P	P	P	S	S	S	S	F	S	P	F	F
5	S	S	S	S	S	S	P	S	S	P	S	S	F	P	F	F	S	F	S	F

A completed task equates to a score of 1, a partial one gives a score of 0.5 and a not finished one corresponds to a score of 0. However, a completed task may have a score of 0.5 if it was completed with assistance and a partial competition correspond to a score of 0 if assistance was given.

The **Success Rate** can be therefore calculated as

$$SR = \frac{(1 * \text{CompletedTasks} + 0.5 * \text{PartiallyCompletedTask} + 0 * \text{NotCompletedTasks})}{\text{TotalTasks}}$$

$$\text{in our case: } SR = \frac{(1 * 67 + 0.5 * 17 + 0 * 16)}{100} = 0.755 \quad (\text{in percentage } 75.5\%)$$

But if we put into the equation the score weighted with the assistance we get:

$$WSR = \frac{\sum PointsScored}{TotalTasks} = 0.685 \text{ (68.5\%)}$$

The weighted score represents better the score of the user testing. From now on, when we talk about success rate, we will refer to the weighted success rate (for more information see *assistance table* below).

This value is quite close to 0.5, the value assigned to partially completed tasks. This means that most tasks could not be accomplished in the way they were intended, demonstrating how tough it was to obtain correct information or figuring out that there could be areas with even more information than the ones found. We can conclude that the third task was the most difficult, while the first (donation) was the easiest. We believe that much more work is needed to enhance this outcome, given there was general confusion regarding the way the information was structured, with special regards to redundancy and consistency.

4.3.2 Elapsed time

The average amount of time users took to finish the tasks, whether they were partially or completely successful, is compared in the graph below.

The average time for each of the four lines is represented by: Users in general, Users who are over 40, Users who are under 40, and no partial success overall.

There appears to be a disparity between the two user demographics; the under-40s were either faster or slower depending on the task. This is due to a high failure rate in tasks 3 and 4 for the 40+ age group. Those who completed those tasks were faster than those under 40, but most of them did not complete the task and were excluded from this statistic. When looking at tasks with a higher success rate, such as 1 and 2, we can conclude that users under 40 were faster.

When examining the red line, that shows the average without considering the partial success, this statistic can be examined in further detail. It is plausible to argue that because they only came across incomplete information, users over 40 completed the task faster overall.

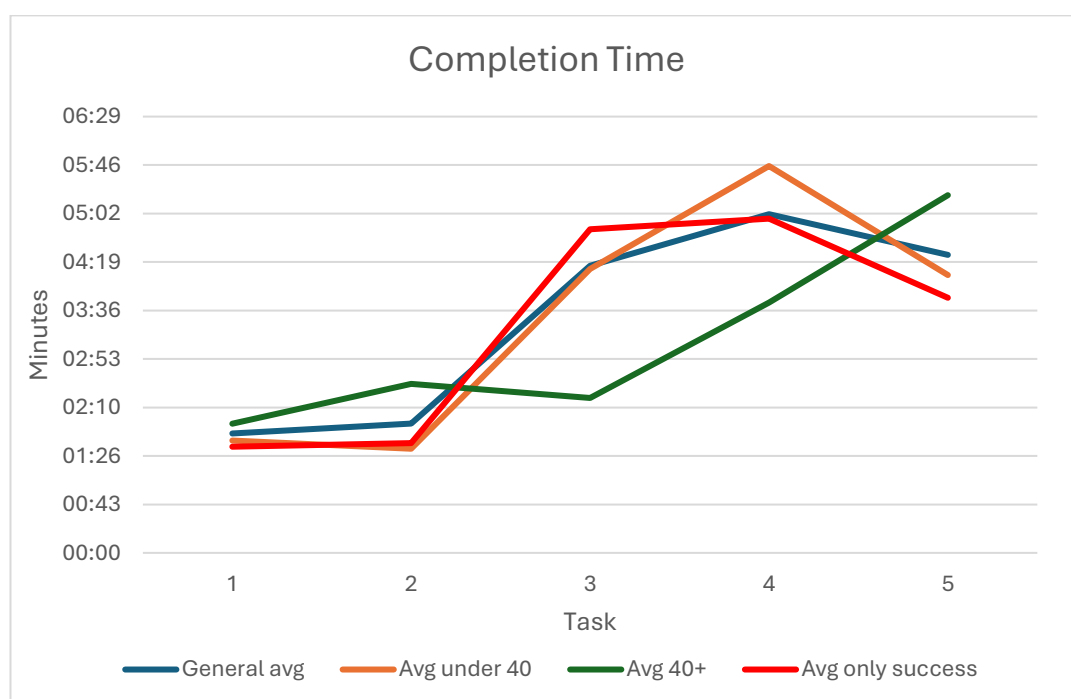


Figure 29: Elapsed time for completion of task

4.3.3 Frequency of assistance

The table below displays a detailed breakdown of the assistance provided for each activity. Y indicates that assistance was given.

TASK	FF					LL					MF					DP				
	U1	U2	U3	U4	U5	U1	U2	U3	U4	U5	U1	U2	U3	U4	U5	U1	U2	U3	U4	U5
1																				
2						Y														
3		Y	Y				Y	Y	Y		Y			Y					Y	
4	Y	Y		Y					Y	Y	Y		Y					Y	Y	Y
5		Y			Y		Y			Y		Y								Y

The counter for given assistance for each task is shown in the graph below.

When the user asked for assistance, it was provided after a set amount of time. Help was not provided prior to that time.

With only one assistance provided for the second work and none for the first, it is evident that the first and second tasks were by far the simplest.

Analyzing the demography reveals a similar outcome despite the difference in age, with the assistance counter corresponding proportionally to the number of users in each group.

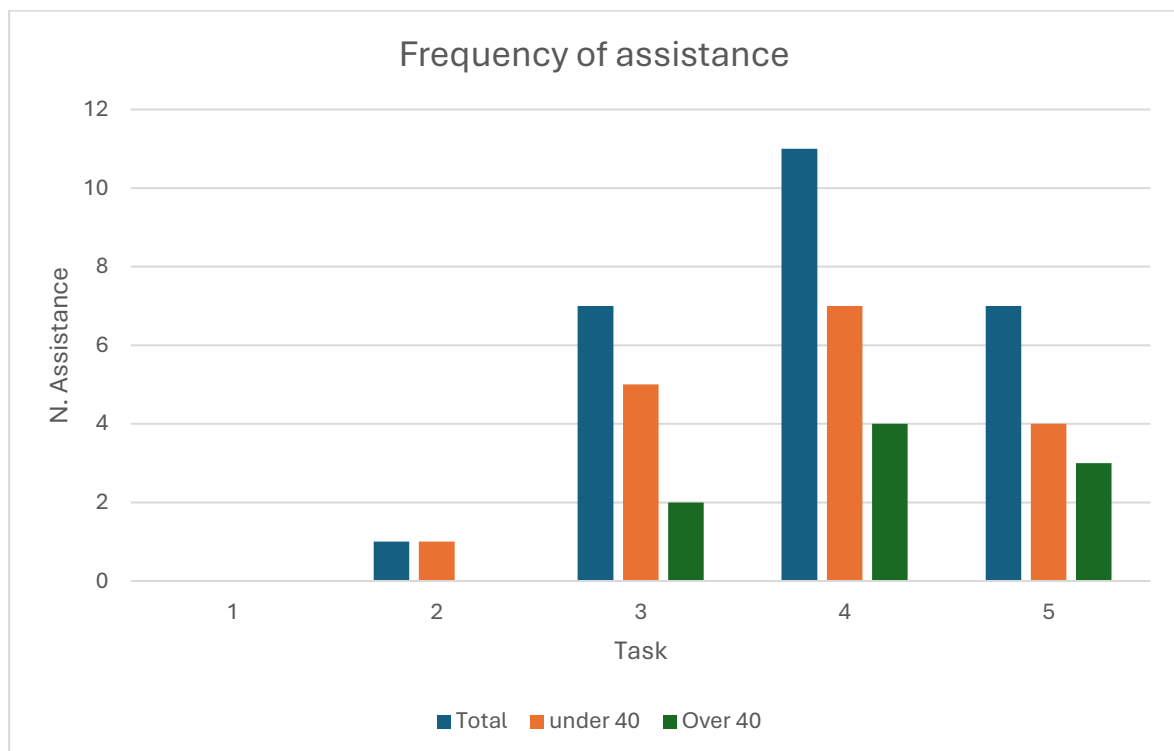


Figure 30: Amount of assistance given

4.3.4 Details for each task

Task 1: Donation

Figure 31: Donation page

The first task consisted in donating to UNICEF. This was a simple one; however, it was critical because the donation is one of, if not the most, crucial features on the website, so it should be very user friendly and accessible.

The donation is accessible directly on the main page with the big and very visible *Donate* button or, as some tester did, through the donate section in the *Take action* menu in the top bar.

The work was slightly expanded by stating the amount of money to donate, the cause to support, and the frequency in order to ensure that it was actually available to everyone and that all possible parts were clear and visible.

The results were as expected: almost everyone completed the task in a short period of time and without any assistance, demonstrating the effectiveness of the donation system and its ease of use. There have been a few situations where the job was not completed successfully, although this was most likely due to a user distraction and should not be blamed on the website.

Task 2: Executive board

The task consisted in retrieving the number of states composing the executive board of UNICEF. The information was available in various section of the page *Executive board* accessible thanks to the top bar under the section *About UNICEF*.

The task was chosen with the primary purpose of allowing the user to navigate further into the website and understand the logic behind its design, demonstrating that the structure might change based on whatever page the user visited. This was still a relatively simple task, with the only source of difficulty being the change in structure, particularly in the top section, which includes a new top bar that replaces the one found on the main page and a menu on top of the bar that allows for easier navigation on the subpages without the need to scroll down (figure ...).

As expected, the results verified our assumptions about the task's difficulty, with a high success rate and only one request for assistance. The time for completion was similarly comparable to the duration of task 1.



Figure 32: Changing in the structure of the website

Task 3: Nutrition in Afghanistan

This was one of the most difficult tasks, designed to demonstrate how difficult it was to find specific information on the website. One of the major issues is the large number of pages, subpages, articles, and reports, many of which are redundant. The goal was to understand how users would navigate them and determine whether the information on one page or article was complete or incomplete.

To help users understand when they had found the correct page with all the information that should have been retrieved, we decided to change the task description to "Find the *page* about nutrition in Afghanistan" rather than just "Find information about nutrition in Afghanistan".

Furthermore, the task was chosen because we discovered a section nutrition in the top bar under *What we do* that did not allow the user to select a specific country. Some testers were tricked in this manner, but the main issue was that the section about Afghanistan was hidden and could not be accessed directly from the top bar menu.

Some users used the research bar, which produced even worse results because it displayed articles rather than sections of the website.

The statistics clearly demonstrate how difficult the task was, with a success rate weighted with the penalty for assistance of WSR = 0.525 (52.5%). This is the worst result out of all tasks, showing that the testers were not able to retrieve the correct information.

Task 4: Data of Belgium

This was another difficult task, as it required determining the number of people in Belgium in terms of both total population and child population. This task was chosen for two main reasons: to highlight the changes in structure once more, and to demonstrate the problems that can arise when using drop down menus and keeping information in them. In fact, the requested information could be found in the drop-down menu in *Data > Data by country*, with the mouse over Belgium.

In general, testers had few problems following the correct path; however, confusion began when almost everyone clicked on the Belgium link in the previously described drop down menu, not realizing that the information was visible without clicking. The majority of them clicked fast and without paying much attention because they saw "Belgium" in the menu and assumed there was no further information.

Furthermore, when clicking the link to the Belgium section, the number of children in the population was not available. Testers realized they were on the right page, but couldn't find the requested number.

The results clearly demonstrate this confusion; despite the relative ease of the task, the average time and number of requests for assistance were the highest among all tasks.

When we look at the actual numbers, 11 out of 20 people requested assistance, which is more than half; clearly not the best scenario.

After realizing where the number was, most users show their disappointment by saying something like: "How am I supposed to see that?".

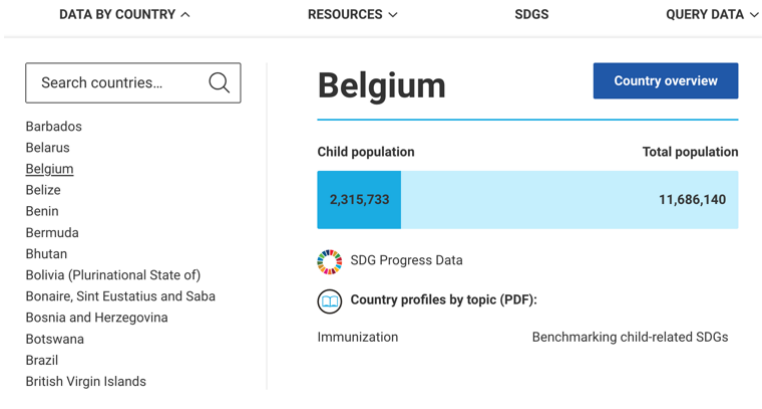


Figure 33: Population of Belgium

Task 5: Top 10 public donors

This was the final task, introduced to demonstrate the complexities of finding information that requires some navigation.

The goal was to determine the ranking of the top ten public donors to UNICEF. This rank could be found in the path: *What we do* > *Partnership*, then looking in the page for public sector partners and, finally, *our top donors*. Clearly, completing this task was difficult and required a thorough examination of the site.

Some people began this task by searching the research bar for "Top 10 public donors." However, the research bar distinguished between *donors* and *donators*, resulting in incorrect results.

The hardest part for the testers was realizing that they needed to look for "partnership", which is not very intuitive when looking for donors. Most users, however, did not even open the appropriate section on the top bar because they believed that other sections were more relevant. Some even returned to the donation page to look for the rank.

The results are comparable to the third task, which had a very low success rate and numerous requests for assistance.

This task summarizes all of the major issues found on the site, ranging from information overload to incorrect page placement in the site structure, highlighting the fact that people did not navigate smoothly through the site.

Top public sector donors by contributions received,² 2022

Rank	Resource partner	Total US\$, millions
1	United States of America	1,286
2	Germany	1,047
3	World Bank Group	542
4	European Union	524
5	Gavi, The Vaccine Alliance	339
6	Canada	263
7	United Kingdom	228
8	Office for the Coordination of Humanitarian Affairs (OCHA)	224
9	Sweden	222
10	Japan	199

Figure 34: Top-10 donators ranking

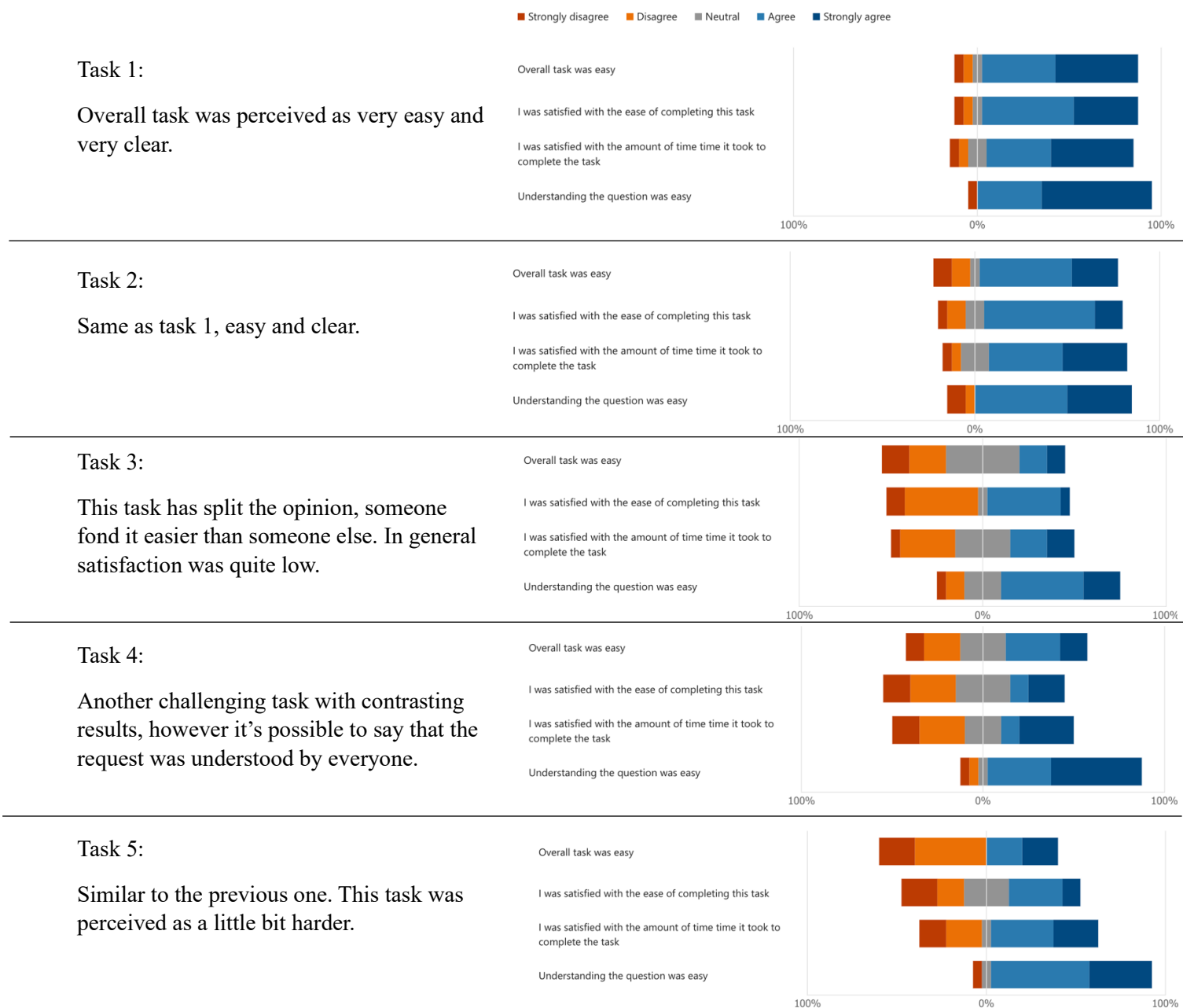
4.3.5 People's feedback

Following the test, users were asked to answer 10 closed questions and 3 open questions about their happiness, general perceptions of the site's content, ease of use, content organization, and navigability, with scores ranging from *strongly disagree* to *strongly agree*.

They were also asked to respond to four closed questions for each task in the same format as before in order to gather feedback on the tasks.

Feedback on the tasks

Below it's possible to see the answers for each task.



Finally, the feedback reflects the testing results: the first two tasks were simple and completed quickly; the other three were much more difficult, but the request was still understandable.

Feedback on the website

After analyzing the data, we discovered that the organization of the content and the site's navigation are major issues that have a significant impact on user experience. Overall, users rated the website's visuals positively. According to the questionnaire, the user felt that the amount of information on each page was excessive, and that he or she had to scroll frequently to find the information they were looking for.

Taking into consideration the qualitative approach, users liked the donation system, but they had issues with the menus, which were sometimes misleading (for example, the *donors* section was listed as *partnership*, leading users to search for information for the task in the 'transparency' section) and, in particular, the search bar, which forcefully changed the key search words into the best matching ones rather than simply suggesting them.

Overall, aside from the positive evaluation of the graphic aspect, users confirmed our analysis of the need for this site to reorganize itself and simplify access to information for its users.

Another key fact is that the majority of users didn't think that utilizing the website was effortless. Some of them were overwhelmed by the amount of content that needed to be read in order to comprehend how to progress with the navigation. When considering the last task, users had to read the majority of the pages they were navigating in order to determine if they were on the right track. Some of them were near to completing, but they overlooked critical areas of the page and failed to locate the ranking. This behavior could be attributed to the volume of information that needed to be read.

■ Strongly disagree
 ■ Disagree
 ■ Neutral
 ■ Agree
 ■ Strongly agree

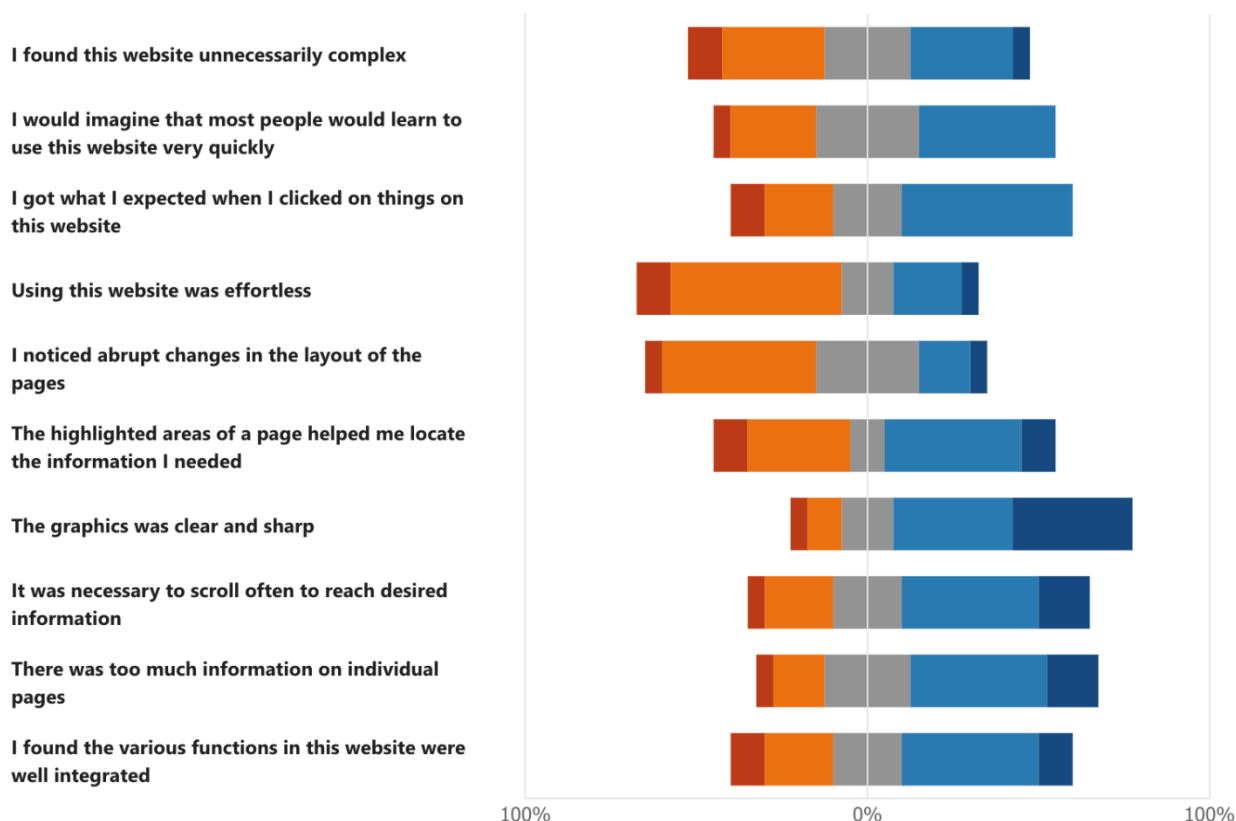


Figure 35: People's feedback on the website (closed questions)

Down below it's possible to see the charts regarding the open questions and the answers given by the users. Answers were analyzed and summarized on three main topics.

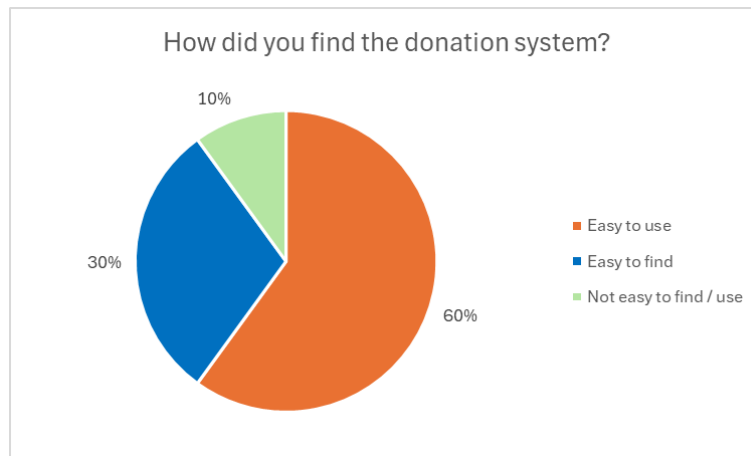


Figure 36: Open question 1 results

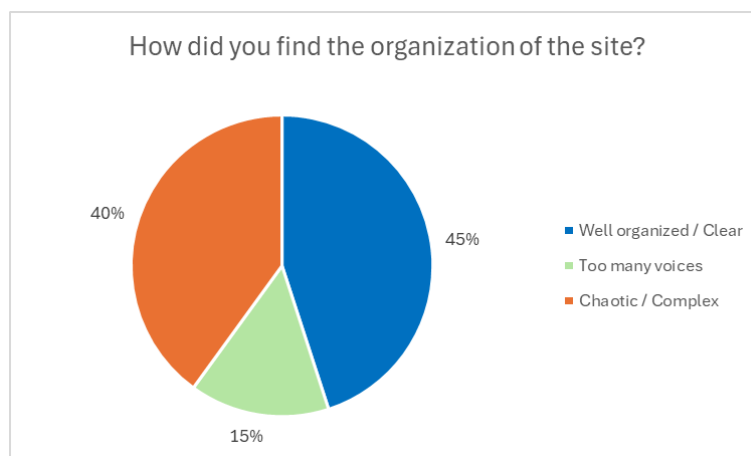


Figure 37: Open question 2 results

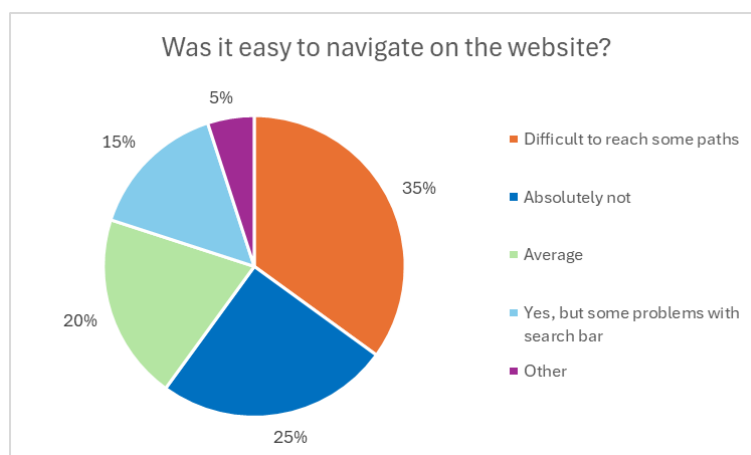


Figure 38: Open question 3 results

5 Conclusion

5.1 Final results

Both inspection and user testing gave meaningful results: in Inspection analysis, the website obtained an average score of 2.66 out of 5. In particular, we have highly evaluated the presentation category while the other two categories gained a lower score since, based on our analysis, the *Navigation* and *Content* part of the website lack of structure and usability.

These results came out to be harsher than the user test results, since the average score of each user was 3.4 out of 5. However, people who participated in User Testing weren't satisfied with the website, mostly due to the difficulty they found in researching specific information inside the website, whose organization of content results to be quite confusing. To sum up, we can state that the website, while not lacking in the quantity of information available, needs a general reorganization of its content.

5.2 Redesign suggestions

In conclusion we want to suggest some improvements that could be implemented into the website:

- Add breadcrumbs to all the pages of the website for easier navigation and improve their precision on tracking the effective path used by the user.
- Adding a back button.
- Reorganize the upper bar's menus establishing a clearer hierarchy.
- Change the upper bar's menus terms into clearer ones that truly reflect their content.
- Translate all the pages in the languages displayed in the accelerator.
- Standardize every page's upper menu.
- Add links to pages with the same topic.
- Modify the search bar in a way that gives suggestions to the user instead of automatically modify the key words.
- Add a help center.
- Add a true high contrast accelerator.
- Standardize the monthly and single donation interface since now is not possible to specify to which cause to donate in the monthly one.
- Reduce the cognitive overload in the upper menus.
- Reduce the need for the users to scroll in the page to reach the desired information.

6 Annex

6.1 Inspection tables

Tables containing each group member's ratings and comments for each heuristic and website page.

a. Filippo Fini

CATEGORY	EURISTIC	SCORE	COMMENT
Nielsen's	1. Visibility of system status	1	Bread crumb is accessible only for some pages. It's difficult, if not impossible, to determinate on which page the user is currently on, sometimes we are redirected to a different website with no possibility to go back to the initial home page. In the URL, for example, clicking the main logo returns to a sub page, in order to go back to home there is a small link on the top right.
	2. Match between system and the real world	5	All labels are not technical and have common terms.
	3. User control and freedom	1	As said before, sometimes it's not possible to go back to the home page as there are some links to external website without the possibility to go back to the original site.
	4. Consistency and standards	5	Conventions satisfied (only example is the search icon on the top right)
	5. Error prevention	1	Same as point 1 and 3. Clicking on a wrong page may cause getting lost on the site. Mistakes are a big problem.
	6. Recognition rather than recall	3	Not really relevant to this site. The only thing that the user can insert is a search in the search bar. This gives suggestions but doesn't store previous researches.
	7. Flexibility and efficiency of use	3	There are two main accelerators: the change language button and the high contrast button. The first one is repeated on top of each article so the user can change the article's language straight away. However, not all the languages are available
	8. Aesthetic and minimalist design	3	Design is simple, however each page is loaded with informations, icons and pictures, making the site quite difficult to navigate due to the overload of informations, often redundant.
	9. Help users recognize, diagnose and recover from errors	4	The design in the case of a 404 error is understandable a suggests to return to the home page, which is a correct way of handling the problem. In the case of a donation, incorrect inputs are clearly highlighted.
	10. Help and documentation	1	There is no help button.
Mile's content	Information overload	2	Most pages are loaded with informations, pictures and links. There seems not to be a logical architectural organization. The main bar contains all the possible links to the website, creating confusion. Links to subpages should have been inserted in the direct subpages, not on the main bar, that is accessible from all the other pages. However, some like articles, have a correct amount of information, displayed in a clear and simple way without too many links or images.
	Consistency of Page Content Structure	1	Pages of the same topic have in general the same structure, however there are some pages like the ones in the category "How we do it" that radically change the structure. In particular the layout of text and images is changed. Special notice on the "supply" section: here not only the layout is changed from the other sections, but also the menu bar and the general structure of the page is redesigned without regards to the other pages; it almost seems like we are on a different website, with different links and also new top bar. Furthermore, when clicking on the main page link we are redirected to that subpage, without a clear possibility of returning to the home.
	Contextualized Information	2	Most of the times it's possible to understand in which context the user is by reading the page title, however a lot of pages lack the bread crumb so it's really difficult to understand the logical structure of the site and how a user got to that specific page. I think that, for an user, retracing its step in the navigation it's almost impossible.
	Content organization (hierarchy)	3	The hierarchy is correct. The content is structured in the correct position and with defined hierarchical levels. The main problem is the big fragmentation into multiple levels; reducing that amount will improve navigation and will make the topics more understandable. I would change the "Global advocacy" section by moving it into the "Focus areas" or by creating a new main section in the main bar.
Mile's Navigation/Interaction	Interaction consistency	2	The interaction is mainly in the form of links. The structure is consistent apart from, as said before, some sections like "Supply" or "Innocent" that radically change the structure, like visiting a new website with new menu bar, links, images and general structure.
	Group navigation-1	2	The profound hierarchical structure makes easier to navigate into subpages and back, however switching to different groups is a problem caused by the fact that changing group is possible only by using the topbar. This becomes a huge problem when the structure of the site changes because the same topbar changes from group to group. An user may feel lost and may not be able to switch to a different group on the same hierarchical level at all.
	Group navigation-2	0	Menus definitely create cognitive overload. In the topbar or in the bread crumb the list of options is by far more than a human can process, creating confusion.
	Structural Navigation	2	For some page it's easy to navigate in the same topic, for other it's not. See Group navigation-1
	Semantic Navigation	1	Sometimes it's impossible to go back to a previous page due to the nature of the site. For example in the afghanistan page, when we want to learn more we are redirected to a new page that has a different structure (as described earlier).
	Landmarks	1	Landmarks suffer from the problem of changing structured described before: they also change from page to page.
Mile's Presentation	Text lay out	5	Text is readable and in the correct size.
	Interaction placeholders-semiotics	5	Labels, boxes and links are consistent and effective. It's easy to identify where a link is placed.
	Interaction placeholders-consistency	5	Interactive elements are coherent with shape, wording and color and position.
	Consistency of Visual Elements	4	Overall consistency is respected. Sometimes pages of the same topic can even different element such as a donate button, but the structure is kept.
	Hierarchy-1	4	Position of elements gives a sense of hierarchy in the informations, however there are pages where that feeling is missing since links and boxes are put together. An user is not helped by that, he/she doesn't know where to click to get the most relevant info on the topic. Overall quite good, for example articles suggested have bigger boxes (but not on all pages).
	Hierarchy-2	4	Explained also in the previous point.
	Spatial allocation-1	4	Semantically related elements are close to each other. The only point is in the first section i would move "Global advocacy" to a different section.
	Spatial allocation-2	4	Same as previous point.
	Consistency of Page Spatial Structure	5	Special organization is well preserved and consistent.

b. Matteo Fiorentino

CATEGORY	EURISTIC	SCORE	COMMENT
Nielsen's	1. Visibility of system status	1	The bread crumbs are not always present and even when they are it doesn't seem to actually reflect the path taken to reach the specific page. Also sometimes i will be redirected to another page without the possibility to go back or if there is, is not very visible. Overall very difficult to understand where you are.
	2. Match between system and the real world	1	the terms used are not system specific but instead depict in natural language their meaning/content
	3. User control and freedom	1	beside what stated above, there isn't anything prefixed to return back to a previous page.
	4. Consistency and standards	1	the only standard symbol is that of the search function and it is correctly placed and has the correct standard representation.
	5. Error prevention	1	like said above once reached a wrong page is difficult to return back also the help center is hidden in the contact us section.
	6. Recognition rather than recall	1	the search bar gives suggestion to the user but it doesn't show past user's researches
	7. Flexibility and efficiency of use	1	there are some accelerators in the website like the possibility to set a high contrast or the possibility to change languages. the reason for the low score is that not all the pages are available in other languages, so the accelerator becomes useless
	8. Aesthetic and minimalist design	1	there isn't any overbearing design and the style feels clear and simple. even if the site is meant to report various information i think they could have been organized in a clearer way
	9. Help users recognize, diagnose and recover from errors	1	there are clear explanation on the errors in the situations i have found page not found, language not available and wrong input donation)
	10. Help and documentation	1	this website has an help center. the problem is that the help center is hidden in the contact us section making it difficult to find.
Mile's content	Information overload	1	The content itself of the pages(in particular articles) has a correct amount of information. the problem resides in the menu where there all listed all the subpages. it would help to create the groups based on the content of the pages and the make the group accessible by links in the page or submenus in the bar, this would decrease by a fair amount the number of informations being displayed.
	Consistency of Page Content Structure	1	like seen in the others criteria the website itself is lacking in consistency. there some pages that share the same structure, but there are also some pages that deviates from that. i can understand the difference in topics but in this type of site i think it is wrong to use different format since the same structure would help the users to better recognize and understand the content.
	Contextualized Information	1	beside the titles of the pages, it is near impossible to understand where in the site the user is. there are very few bread crumbs and when they are present they don't always represent the actual path taken making retracing the user's own steps impossible.
	Content organization (hierarchy)	1	the content of the pages is organized in a clear way that helps the user in creating a basic order of importance. the problem is that is really basic, no bold or different sizes of the text and also the structure is very simple;
Mile's Navigation/Interaction	Interaction consistency	1	in general the main methods to access another page are links in the content itself, or boxes(beside the menu) and this is mostly constant in all pages. the problem lies in the ones where the menu is no more a drop down since it will limit by a fair amount the scope of navigation of the users
	Group navigation-1	1	It is not clear the structure or to which group a pages belong. it feels more like a random collection of page beside the basic organization like 'What we do...', this reflect in the inability of the owners to provides method to reach pages in the same group (there aren't any) and in the users difficulty in navigate this site, especially pages on the same level of the hierarchy.
	Structural Navigation	1	as said above the menus lack a clear structure and simply list all the possible pages creating a cognitive overload for the users.
	Semantic Navigation	1	like explained before this site lack the methods to navigate between one page and another, this includes pages of the same topic.
	Landmarks	1	there are some pages that permits to reach topic related pages like the "child protection" and the "protection/programmes one. but is not possible for all pages and is not always bidirectional
	Landmarks	1	as explained above the landmarks are not consistent, not always present and also not precise.
Mile's Presentation	Text lay out	1	the text is readable and it's size is appropriate. it would be better if the text in the menu would be one size bigger for a reason of proportions
	Interaction placeholders-semiotics	1	there isn't any interaction element not recognizable.
	Interaction placeholders-consistency	1	all interactive element's color, size, position are consistent
	Consistency of Visual Elements	1	in general the visual element are consistent, but in some pages the menu is in different positions and works in different ways.
	Hierarchy-1	1	in general the allocation of content reflect the difference in importance of the content. some part instead feels a little they could use some highlighting maybe displacing the content instead of simply listing it
	Hierarchy-2	1	the images or the videos reflect a clear importance of the element in the page and seems to reflect very well the intentions of the owners of the page to sensibilize people, the boxes instead doesn't reflect a different importance of content nor a logical order but feels like a simple list.
	Spatial allocation-1	1	Semantically related elements are placed next to each other in a correct way.
	Spatial allocation-2	1	Semantically distant elements are placed distant to each other in a correct way.
Mile's Presentation	Consistency of Page Spatial Structure	1	pages of the same type share the same structure

c. Luca Longinotti

CATEGORY	EURISTIC	SCORE	COMMENT
Nielsen's	1. Visibility of system status	1	The breadcrumbs are available only on some pages and in these they also appear to be a little bit unclear. This creates little clarity about the system's status step by step. In addition, there are some sections that, when visited, do not allow returning to the previous page (vd. URL).
	2. Match between system and the real world	5	The terms used are in line with the purpose of the website; furthermore, the few icons present are intuitive and well-used.
	3. User control and freedom	2	In all pages where the breadcrumb is missing, there is no button to return to the homepage. In the donations page, the same issue is present, however, the form provides the option to go back in case of an error.
	4. Consistency and standards	5	All conventions are respected.
	5. Error prevention	2	Going back after an incorrect click remains an issue with the website, except for the donations form as already mentioned before.
	6. Recognition rather than recall	4	The search bar provides suggestions once the first letters to search are entered. At the bottom of some pages, there is the "related topics" section, useful for going deeper into the topic being searched.
	7. Flexibility and efficiency of use	4	The accelerators used are those related to language change, high contrast, donations, and press center. These are always present on the various pages, and their selection is correct.
	8. Aesthetic and minimalist design	4	The information provided for each topic is essential; the user has the opportunity to go deeper by clicking on various buttons such as 'learn more', 'read more', 'visit the page'. The number of photos present is perhaps too high, but they represent a quick and effective way to understand the purpose and importance of the topics covered by the website.
	9. Help users recognize, diagnose and recover from errors	2	The search bar automatically modifies the entered search term to the closest matching term available on the website. It would be better if it suggested alternatives. The error page is clear, but very minimal and not very interactive. The error recognition in the donations form is handled correctly.
	10. Help and documentation	0	No help documentation available
Mile's content	Information overload	2	The majority of the pages are rich in content, but almost never redundant. Images are frequently used, but as mentioned earlier, they can help in understanding the context. A useful thing would be to synthesize the menu items to make it clearer. In particular, in the section 'About Unicef' -> 'Where we work', all the links redirect to the same page with different URLs.
	Consistency of Page Content Structure	2	In some sections, the pages are created with the same layout and consistency, while in other cases, this is lacking. In the section 'Stories' -> 'Emergencies spotlight,' all of them have the same structure except for the one about the Central African Republic, which redirects to a completely detached page not in line with the stylistic choices of the others.
	Contextualized Information	1	Once on the page, it's difficult for the user to understand which section they're in. The almost complete absence of breadcrumbs makes this action even more complex. The title is the only reference the user has regarding the topic of the page.
	Content organization (hierarchy)	4	The hierarchy is correct; the various contents are placed in the right order. The only flaw is the excessive fragmentation through links and buttons.
Mile's Navigation/Interaction	Interaction consistency	1	The possible interactions on the pages within the same sections are almost always the same; the problem is that they are placed in different positions within the pages themselves, which creates confusion. In section 'Stories' -> 'Emergencies spotlight,' the option to make a donation is always provided, but using consistently different graphical choices (button, form).
	Group navigation-1	1	In the site, there are no real groups of pages. The only groupings are made through the menu and can only be viewed in this way. So the navigation through groups and the items themselves is almost non-existent.
	Group navigation-2	0	The menu creates cognitive overload; inserting an access link to every page causes confusion and disorder.
	Structural Navigation	1	The extensive menu provides direct access to almost all pages; however, there is a lack of connection between the various components of the same topic.
	Semantic Navigation	2	Often, pages feature a series of related topics at the end, reachable with a click. The rating is so low because there is never a button to navigate back.
Mile's Presentation	Landmarks	1	The landmarks are mostly absent, and when used, they vary depending on the page.
	Text layout	5	Text is readable and also font size used are correct.
	Interaction placeholders-semiotics	5	Not many interactive elements and icons are present. The ones used are okay.
	Interaction placeholders-consistency	5	All interactive elements' labels are consistent.
	Consistency of Visual Elements	4	Except for the donation form in the stories section (as mentioned earlier), the visual elements exhibit the same properties across pages of the same type.
	Hierarchy-1	5	Content allocation is ok.
	Hierarchy-2	4	The visual element allocation is generally okay. The importance that the website wants to give to images is clear, although occasionally their size could be reduced.
	Spatial allocation-1	5	The semantic division is correct.
	Spatial allocation-2	5	The semantic division is correct.
	Consistency of Page Spatial Structure	5	Pages of the same type have the same spatial organization for the various visual elements.

d. Davide Pessi

CATEGORY	EURISTIC	SCORE	COMMENT
Nielsen's	1. Visibility of system status	2	User is always aware of important information during the donation and also knows in which step of the donation he is
	2. Match between system and the real world	4	Not really applicable but all link in the page are paired with an image that help to understand which problem is referring to
	3. User control and freedom	3	User don't always have freedom of movement. Some pages are disconnected from each other, for instance going into the donation page doesn't give us the option of going back
	4. Consistency and standards	3	Partner and Donate are the same category but identified with different words
	5. Error prevention	2	Error prevention is used in the donation form but unused in the web site for error navigation, still the donation page is an example where i can't go back
	6. Recognition rather than recall	3	The only place where it's applicable is in the search bar and it's only present in 1 search bar (in the link an example of non present)
	7. Flexibility and efficiency of use	2	landmark are mostly absent, and search bar can be useful but helps only if you know the exact name
	8. Aesthetic and minimalist design	0	The web site is full of extra information or description that is not useful for finding information.
	9. Help users recognize, diagnose and recover from errors	4	Error messages are expressed using an appropriate language and without reporting the exception
	10. Help and documentation	0	Not really applicable but there is no way of finding a faq section or any page that can help to better use the site or understand a situation
Mile's content	Information overload	2	main pages have too much information in one page. The same link are offered in all main pages instead of being distributed and organized, on the other hand specific page are more contained and better.
	Consistency of Page Content Structure	1	Some pages of the same type have enough similar structure, but most of the them have different structures like Partnership and Innovation, also some pages have the landmarks while others don't have it. Also some part of the site are structured in a completely different way for instance: https://www.unicef-irc.org/research/children-and-migration-rights-and-resilience/
	Contextualized Information	1	Pages only help to understand where we are are mostly titles, that still does not give us a position inside the site/process. Also the method used is inconsistent since while most pages have a title at the start of the page on the white part centered other pages change the TopBar with the name of our position
	Content organization (hierarchy)	3	The organization of the pages is ok, it could still be improved by reducing the amount of link and by using main pages to help to search for the right section instead of displaying more information
Mile's Navigation/Interaction	Interaction consistency	3	The type of interaction used inside the page is mostly based on boxes, which means also that most interactions are consistent with each other. I would say the biggest difference is in the top bar which can be a drop down or not depending on the page, the search bar can also be open in different ways depending on the page.
	Group navigation-1	1	Items in a group are easier to access by each other, using the topbar. But the problem is passing from a list of items to the other since most list of items have their own different structure, and they are usually connected only to the home page by an almost hidden link. Also, I believe the page in the link section is unable to return to the home page.
	Group navigation-2	0	Menus create cognitive overload, the amount of link and possibility of path from each page and in between pages create a sense of lost inside the site
	Structural Navigation	1	
	Semantic Navigation	1	by going to "supply and logistic it seems impossible to reverse the action and return to the previous page"
Mile's Presentation	Landmarks	1	Landmark are mostly absent and the ones present help us only to return to the home page. I suggest to use landmark for all articles pages and pages which only serve to give information.
	Text layout	4	The text size and font are readable and well used. The most important text are correctly highlighted. The only exception is the home link in subcategory pages that is almost hidden in the page since even if the font is readable the font size is not the right one.
	Interaction placeholders-semiotics	4	Icons are almost unused. This makes all the content more heavy to see. But the majority of labels represent the title of the page which means that it actually represent what it should. One of the exceptions is the "Young people" label in the top bar under the category how we do it which doesn't really make sense since the label doesn't do it's job.
	Interaction placeholders-consistency	5	Interactive are coherent with shape, wording and color and position
	Consistency of Visual Elements	3	If we don't look at "home" pages, pages of the same type have the same structure and visual properties but the structure change slightly from "home" page to "home" page for instance the page for innocent feels different from the general home unicef
	Hierarchy-1	3	Most elements seem to be positioned and sized for their importance and relevance. But if we look at the link in this case most elements seem to be highlighted which means no elements is really highlighted and they all occupy a lot of space in the page. Also in the same page the link to the general UNICEF home is not valued and instead almost hidden.
	Hierarchy-2	5	The position of elements respect the relevance and importance in the site of the element
	Spatial allocation-1	3	If we look at the page the main problem is always in the topBar where the spacing is not respected: in the general page we have 2 column for the first main category which are at the same distance from different category. Also in the link page the top bar drop down into the drop down bar doesn't help to really highlight which elements where part of the second drop down bar and all elements seem to be different from each other or all related to each other
	Spatial allocation-2	4	Different elements are generally positioned with a right distance the only exception is the link page where all elements are close to each other and you can't really feel that the elements are different from each other, also the top bar with the 2 drop down menu
	Consistency of Page Spatial Structure	5	Spatial organization is the same for various elements in pages of the same type

6.2 User testing reports

Timings and other quantitative data for each user tested are listed in the tables below, divided by group member.

a. Filippo Fini

User	Task	Completion (S/P/F)	Completion time (min)	Assistance Y/N	Points	Comment
1	1	S	01:00	N	1.0	
	2	S	02:00	N	1.0	
	3	P	02:50	N	0.5	At first, the user clicks on nutrition but can't reach afghanistan. Then uses the reserach bar that leads the user to an article about nutrition in afghanistan, however that didn't provide enough informations.
	4	S	07:00	Y	0.5	After clicking on the data link, user doesn't notice that the topbar changed and search for topics. After assistance she manages to find the correct info.
	5	S	02:30	N	1.0	
2	1	S	02:20	N	1.0	
	2	S	01:10	N	1.0	
	3	S	08:00	Y	0.5	The huge amouunt of informations confuse the user. Starts by using the research bar, but the results don't satisfy the tester. Manages to find the page about afghanistan but gets confused on how to proceed from there. After assistance finds the correct page.
	4	S	08:40	Y	0.5	Same problems of previous tester
	5	S	09:20	Y	0.5	Research across all of the topbar and uses research without success. After the assistance that should click on "partners" manages to find the correct rank.
3	1	S	03:20	N	1.0	
	2	S	02:24	N	1.0	
	3	S	09:40	Y	0.5	As previus users, gets confused by all the amount of informations. Clicks on the wrong links that lead to page that seems correct like "nutritions" but aren't. Find Afghanistan on own but gets assistance to find nutrition on Afghanistan
	4	S	07:30	N	1.0	Finds the correct data in a database after a long research. Also uses a tool to ask questions that doesn't work.
	5	S	01:25	N	1.0	
4	1	S	01:10	N	1.0	
	2	S	01:00	N	1.0	
	3	P	00:56	N	0.5	Finds the correct path to the page but stops too early, thinking that the correct page has already been found.
	4	S	08:15	Y	0.5	Explicitly says that didn't notice the change in the layout in the "data" page. Overall same problems as before of not reading properly the new topbar.
	5	S	02:20	N	1.0	Notice that the reserch bar changes the words. Stops using it after this discovery and continues "by hand"
5	1	S	01:00	N	1.0	
	2	S	02:30	N	1.0	Downloads a pdf of a report from a page, then finds the correct one.
	3	P	02:20	N	0.5	Finds data about nutrition in the database of the site. This is just a partial completion of the task.
	4	S	02:50	N	1.0	
	5	S	07:40	Y	0.5	Has difficulty on finding the path to the information. Goes also back to the donation page. After some time gets helped and goes to the "partnership" page. After that, finds the ranking easily, even if the various link and informations cause some confusion.

b. Matteo Fiorentino

User	Task	Completion (S/P/F)	Completion time (min)	Assistance Y/N	Points	Comment
1	1	S	03:00	N	1.0	
	2	S	01:25	N	1.0	
	3	S	05:15	Y	0.5	assistenza perchè non andava in learn more e quindi non trovava la nutrition page
	4	P	06:26	Y	0.5	trovato numero bambini in how many, che però è diverso da numero da noi richiesto.sarebbe utile specificare che numero bambini comprende persone <18 anni
	5	S	04:20	N	1.0	
2	1	S	01:10	N	1.0	
	2	F	05:15	N	0.0	
	3	F	02:15	N	0.0	trovato pagina simile ma sbagliata
	4	S	03:35	N	1.0	
	5	S	04:10	Y	0.5	
3	1	S	01:29	N	1.0	
	2	S	01:14	N	1.0	
	3	P	03:10	N	0.5	
	4	S	09:33	Y	0.5	ha faticato a trovare la pagina del topic by country, una volta trovata ha risolto velocemente
	5	F	04:22	N	0.0	focalizzata tanto tempo in transparency
4	1	S	02:32	N	1.0	
	2	S	01:23	N	1.0	
	3	S	09:56	Y	0.5	è passato sulla pagina precedente a quella corretta ma ha semplicemente guardato le immagini e non ha notato la scritta nutrition
	4	S	04:15	N	1.0	
	5	P	07:27	N	0.5	ha guardato per molto tempo in transparency come gli altri users.
5	1	S	01:01	N	1.0	
	2	F	01:06	N	0.0	
	3	F	00:48	N	0.0	ha pensato di aver trovato subito la pagina che però non era quella corretta ma una simile
	4	S	01:33	N	1.0	
	5	F	03:29	N	0.0	

c. Luca Longinotti

User	Task	Completion (S/P/F)	Completion time (min)	Assistance Y/N	Points	Comment
1	1	S	00:39	N	1.0	
	2	P	02:04	Y	0.5	Ha raggiunto in maniera autonoma la sezione dell'executive board; ha cliccato poi su "more information" anzichè scrollare per vedere "Membership" (Assistenza in questo)
	3	S	02:44	N	1.0	Inizialmente più concentrata su Nutrition; quando si è concentrata su Afghanistan ha trovato subito
	4	S	04:49	N	1.0	Quando ha trovato la sezione Dati è stato semplice
	5	S	04:10	N	1.0	La task è stata completata eseguendo un path diverso da quello pensato originalmente. Nella richiesta può esser utile inserire l'anno a cui si fa riferimento
2	1	S	00:31	N	1.0	
	2	S	01:04	N	1.0	
	3	P	06:41	Y	0.5	Va in primis su sezione Nutrition
	4	S	00:22	N	1.0	
	5	P	07:58	Y	0.5	Utilizzo della ricerca ma senza risultati sui "top donors"
3	1	S	00:47	N	1.0	
	2	S	00:37	N	1.0	
	3	F	08:41	Y	0.0	Utilizzo barra di ricerca per nutrition; con input raggiunge la fine ma fuori tempo stabilito
	4	S	01:21	N	1.0	
	5	S	02:20	N	1.0	
4	1	P	04:46	N	0.5	Non ha cambiato l'importo
	2	S	01:31	N	1.0	
	3	F	08:50	Y	0.0	
	4	P	03:00	Y	0.5	
	5	S	05:07	N	1.0	
5	1	S	01:02	N	1.0	
	2	S	02:10	N	1.0	
	3	S	02:56	N	1.0	
	4	P	04:02	Y	0.5	
	5	P	06:08	Y	0.5	

d. Davide Pessi

User	Task	Completion (S/P/F)	Completion time (min)	Assistance Y/N	Points	Comment
1	1	P	03:22	N	0.0	
	2	P	06:28	N	0.5	
	3	F	10:00	N	0.0	
	4	F	10:00	N	0.0	
	5	F	10:00	N	0.0	
2	1	F	02:49	N	0.0	Puts wrong cause and makes it periodical.
	2	S	01:35	N	1.0	
	3	S	02:55	N	1.0	
	4	S	04:49	N	1.0	
	5	S	03:37	N	1.0	
3	1	S	02:19	N	1.0	
	2	S	00:30	N	1.0	
	3	S	02:37	N	1.0	
	4	P	07:31	Y	0.5	
	5	F	10:00	N	0.0	
4	1	P	00:20	N	0.5	Didn't finish to compile but parameters where correct.
	2	S	02:26	N	0.5	Help needed to return to the home page.
	3	S	03:14	Y	0.5	Help needed to return to the home page.
	4	F	07:53	Y	0.0	Didn't find the number of children.
	5	S	02:15	N	1.0	
5	1	S	01:54	N	1.0	
	2	S	03:04	N	1.0	
	3	S	00:46	N	1.0	
	4	F	10:00	Y	0.0	Gave Up.
	5	F	10:00	Y	0.0	Gave up.