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Hypermedia Application - Usability Report

WAMM Team - Evaluation of www.theinterngroup.com

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1 Abstract

The purpose of this document is to conduct a comprehensive analysis of The Intern Group, a major website for applying to a plethora of internships. Our analysis will focus on identifying the website's usability concerns. The analysis will be carried out in two parts: Inspection Evaluation and User Testing.

The Inspection Evaluation, which will be performed by our team members, aims to evaluate the usability of the website by applying a set of heuristics. On the other hand, User Testing, which will be conducted by selected customers representing specific user profiles, will simulate a "real-life" usage of the website. This section will evaluate the website's usability by observing how the users are able to complete a set of predefined tasks. By adopting these two approaches, a complete and exhaustive analysis will be provided.

The analysis indicates that the usability of The Intern Group website is mostly satisfactory but with some room for improvement. Some issues have been identified related to the management of useful information, interaction visibility, and general layout, which will be highlighted in this report.

2 Inspection Evaluation

2.1 General methods

To provide a complete overview of the site aspects it was decided to use different types of heuristics. A heuristic is a problem-solving strategy or rule that provides a practical and efficient approach to solving a problem, especially when there is a lack of complete information or time. Heuristics are often used in fields such as psychology, computer science, and artificial intelligence.

In the context of user experience design, there are different sets of heuristics that are used to evaluate the usability and user-friendliness of interfaces. The ones chosen to fulfill the purpose were Nielsen's and MiLE's.

2.2 Nielsen's Heuristics

Nielsen's heuristics were developed by Jakob Nielsen and are based on a set of 10 general principles for user interface design. These heuristics include guidelines such as consistency and standards, error prevention and recovery, and user control and freedom. Nielsen's heuristics are widely used and respected in the UX community and are often used as a benchmark for evaluating the usability of interfaces.

H1 - Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within a reasonable time. Status bars, process labels, orientation map of the site, bread crumbs, and path-based information are some examples of elements that allow for scoring higher in this heuristic.

H2 - Match between system and the real world

This heuristic is about whether the site uses intuitive icons and layouts which the user can recognize from the real world. An example of this may be using a zooming lens to symbolize a search bar, or using the icon of a bin to indicate discarding something.

H3 - User control and freedom

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. The

sense is that the user must always feel in control of what they are doing. Going into a procedure by accident with no clear exit sign can be a nightmare. It must be possible to perform tiny changes with ease, without being obligated to restart a lengthy procedure.

H4 - Consistency and standards

It is important to find consistency among pages of similar type inside the website so that the users can recognize paths of use without being misled by elements of the site that look the same but behave differently. Moreover, there are certain standards, which are proven valid from previous experience on other websites, that should be maintained in order to avoid confusing the users.

H5 - Error prevention

A carefully designed website should prevent a problem from occurring in the first place. The designers should either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

H6 - Recognition rather than recall

The user should not need to remember the exact thing they are looking for, rather the website should clearly give several choices or possible paths, guiding the users toward the best solution. This is most important for content-rich websites where there are a great number of options to choose from: without proper recognition the user would certainly be lost.

H7 - Flexibility and efficiency of use

Accelerators may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. The Interface should be flexible, supporting both novice and advanced users, and transforming itself depending on the user.

H8 - Aesthetic and minimalist design

Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility. Interfaces need to be cleared of unnecessary elements and content that do not support the page goals and tasks.

H9 - Help users recognize, diagnose and recover

How the website reacts after a user error

H10 - Help and documentation

Help and documentation should be easy to search, focused on the user's task, and should list concrete steps to be carried out, and not be too large.

2.3 MiLE's Heuristics

MiLE's heuristics (Milano-Lugano Evaluation method) are based on a set of more than 40 heuristics that focus on specific aspects of user interface design, such as ease of learning, efficiency, and error prevention. While MiLE's heuristics are less well-known than Nielsen's, they are still a useful tool for evaluating the usability of interfaces, particularly in terms of specific design elements and interactions.

For this study the following MiLE Heuristics have been chosen:

M1 - Information overload: Is the information on a page too much/too little?

M2 - Consistency of Page Content Structure: Do pages that present topics of the same category have the same types of elements?

M3 - Contextualized Information: Does the page include information that helps users understand where they are?

M4 - Content organization (hierarchy): Is the hierarchical organization of topics appropriate for the topic relevance?

M5 - Interaction consistency: Do pages of the same type have the same navigation links and interaction capability?

M6 - Group navigation 1: Is it easy to navigate from, among groups of “items”, and within the items?

M7 - Group navigation 2: Do menus create Cognitive Overload?

M8 - Structural Navigation: Is it easy to navigate among the “components” (“parts”) of a topic?

M9 - Semantic Navigation: Is it easy to navigate from a topic to a related one (in both directions)?

M10 - Landmarks: Are “landmarks” effective for the user to reach the “key” (most relevant) parts of the website?

M11 - Text Layout: Is the text readable? Is font size appropriate?

M12 - Interaction placeholders-semiotics: Are interactive elements “intuitive”? I.e. Do textual and visual labels/icons for interactive elements convey their functional meaning?

M13 - Interaction placeholders-consistency: Are textual or visual labels of interactive elements consistent in terms of wording, shape, color, position, etc.?

M14 - Consistency of Visual Elements: In pages of the same type do visual elements have the same visual properties?

M15 - Hierarchy 1: Is the on-screen allocation of contents within a page appropriate for their relevance? (e.g., does the difference in position reflect the difference in importance of the content elements)

M16 - Hierarchy 2: Is the on-screen allocation of visual elements appropriate for their relevance? (e.g., does the difference in position reflect the difference in importance of the elements)

M17 - Spatial allocation 1: Are “semantically related” elements close to each other?

M18 - Spatial allocation 2: Are “semantically distant” elements placed distant from each other?

M19 - Consistency of Page Spatial Structure: Do pages of the same type have the same spatial organization for the various visual elements?

2.4 Scoring Metrics

Establishing an agreed-upon time frame is of great importance to ensure that the results obtained can later be compared. With regard to our particular circumstance, we concluded that devoting a maximum of 5 minutes per heuristic, for a total of 2 hours and 30 minutes for the entire site, would have been ideal. For each heuristic, a score between 1 and 5 was assigned, in which 5 means *Heuristic fully satisfied* and 1 means *Not satisfied*.

The score was assigned in two stages: first, each member suggested a score and explained their reasoning, and then in the second stage, the group members worked together to find a score that everyone agreed upon.

It should be emphasized that the score given to each heuristic **is not based on the average** of individual members' scores. This decision was made to ensure a fair and balanced discussion where every member's opinion carries the same weight and equally contributes to the final score.

2.5 Inspection Results

2.5.1 Overview

Heuristic Code	Heuristic Name	Score
H1	Visibility of system status	3
H2	Match between system and the real world	5
H3	User control and freedom	1
H4	Consistency and standards	5
H5	Error prevention	3
H6	Recognition rather than recall	5
H7	Flexibility and efficiency of use	3
H8	Aesthetic and minimalist design	3
H9	Help users recognize, diagnose and recover	3
H10	Help and documentation	4

2.5.2 Nielsen Heuristics Results

H1 - Visibility of system status

Final Score: 3

The website has some issues with the implementation of breadcrumbs, which are missing or too small in some pages, and sometimes don't follow the user's path. When it happens, the users are forced to use the navigation bar to go back or to click on the logo of the site. Additionally, some pages like "Data protection policy", "Terms and Conditions" and "Privacy Policy", which can be accessed through buttons at the bottom of all pages, do not have breadcrumbs or any indication of how to reach them. However, overall, the website provides accurate feedback, and the majority of the pages are well-configured to keep users informed about their position on the site. Here we show an example of a page with missed breadcrumbs, reachable by clicking on the "Learn more" button present at the bottom of all the pages that are under the "Career fields" section.

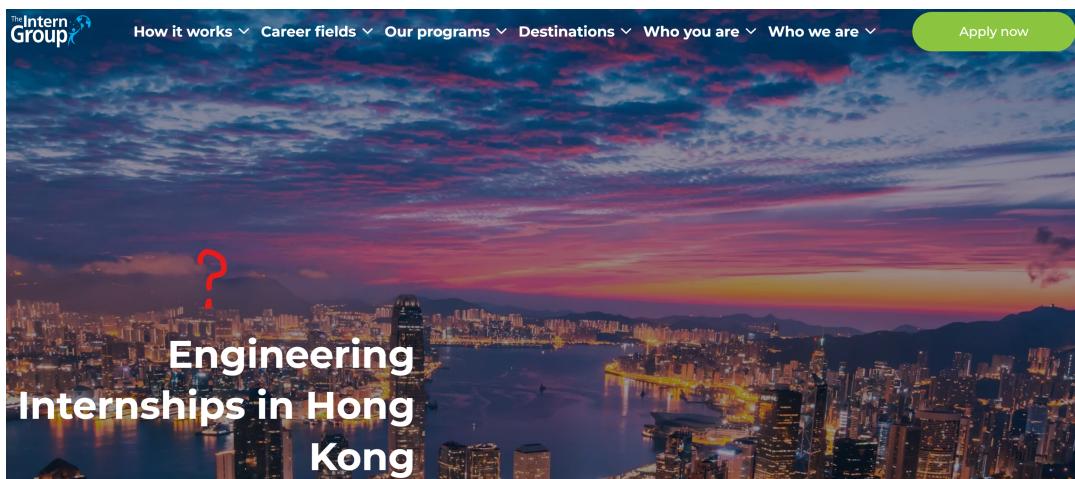


Figure 1: Missing breadcrumbs

H2 - Match between system and the real world

Final Score: 5

The website effectively achieves its goal by using language that is consistent with the intended audience and designed to persuade them to apply for an internship.

H3 - User control and freedom

Final Score: 1

On the pages, there are a lot of “Apply now” buttons, so clicking them unintentionally is very likely to happen. The page has no breadcrumbs so the site does not allow you to go back in case you landed on the “Apply now” page by mistake. Inside the form, there is the possibility not to load your CV but if you try to upload any file you cannot remove it without reloading the page. Moreover, if you compile it and confirm the action by clicking on “Continue to schedule your interview”, you are redirected to a new page that has no clue with the previous one (you can't even use the browser's back button). So, if you want to modify some fields of the compiled form you have to click on the logo to return to the Home Page and fill it out again.

H4 - Consistency and standards

Final Score: 5

The web application complies fairly well with the conventions used for this kind of application: the logo is clickable and it correctly leads to the home page; there is a properly placed floating button in the lower right corner, useful for contacting an operator; the footer is placed at the bottom with the contact information, the field to subscribe to their newsletter and the information about data processing and privacy. Finally, on the “Apply Now” page the box to accept the data processing is correctly placed at the end of the form.

H5 - Error prevention

Final Score: 3

Breadcrumbs are navigable so as to provide the user with a way back. However, breadcrumbs are not dynamic as they do not reflect the user's navigation path, but instead the hierarchical structure of the pages, which is not always consistent. As we can see in the image 2, the breadcrumbs don't show how we reached the Part-time internships page, that is accessible through the “Who you are” navigation bar's drop-down menu. This can lead to confusion rather than helping the user who wants to go back to the previous view. Moreover, the breadcrumbs and the top menu are not available on all pages (e.g., Recruit interns) leading the undo action to be done via the browser buttons, instead of using links meaning. On a positive note, error messages are appropriately displayed in the forms, enabling users to identify and correct mistakes as they fill out the form. Sometimes they do not appear immediately but right after we move on to the next field, and they are not always completely correct.



Figure 2: The breadcrumbs does not reflect the user's navigation path

H6 - Recognition rather than recall

Final Score: 5

The website has a dense landmark navigation bar that guides users during their navigation. Each landmark is a drop-down menu that makes it easier for users to traverse the website and improves recognition of information. The “Apply Now” form is well-designed, with a lot of drop-down menus that minimize the user's memory load and make it easier to fill.

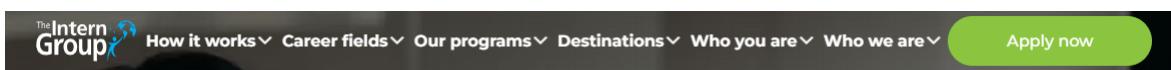


Figure 3: Landmarks.

H7 - Flexibility and efficiency of use

Final Score: 3

Breadcrumbs are missing on a few pages and in the Hire Interns one the Navigation Bar

misses. Some of its drop-down fields are redundant and lead to the same web page as other options. Moreover, some options are positioned in a landmark drop-down menu they don't belong to, which can make the website difficult and long to traverse. The "Apply Now" button is always present in the top right of the navigation bar, which leads to the standard application form. This button is also duplicated many times on certain pages, specifically under application opportunities in cities. However, they do not provide the probably intended speed up of the application process, as clicking on them simply redirects the user to the standard "Apply Now" page without any pre-filled form fields. A good aspect is a floating button, which is always present and provides a quick shortcut to the user with a way to contact the organization.



(a) Specific apply buttons per option
that don't speed up the process



(b) Landmark buttons that lead to the same page

H8 - Aesthetic and minimalist design

Final Score: 3

The navigation bar is too dense to be considered minimalist, however, the website is overall well-designed for the amount of information it needs to convey.

When scrolling down, the bar changes color to white in an unnatural way, which does not look pleasing, and the news outlets' strip is unnecessarily always present. Some pages open to an oversized picture and title and require scrolling down to access any useful information. Other elements are too small, like the breadcrumbs, and might be unreadable on larger monitors. The website's layout also does not scale well to higher resolution monitors, with white columns present on both sides and the footer could be condensed.

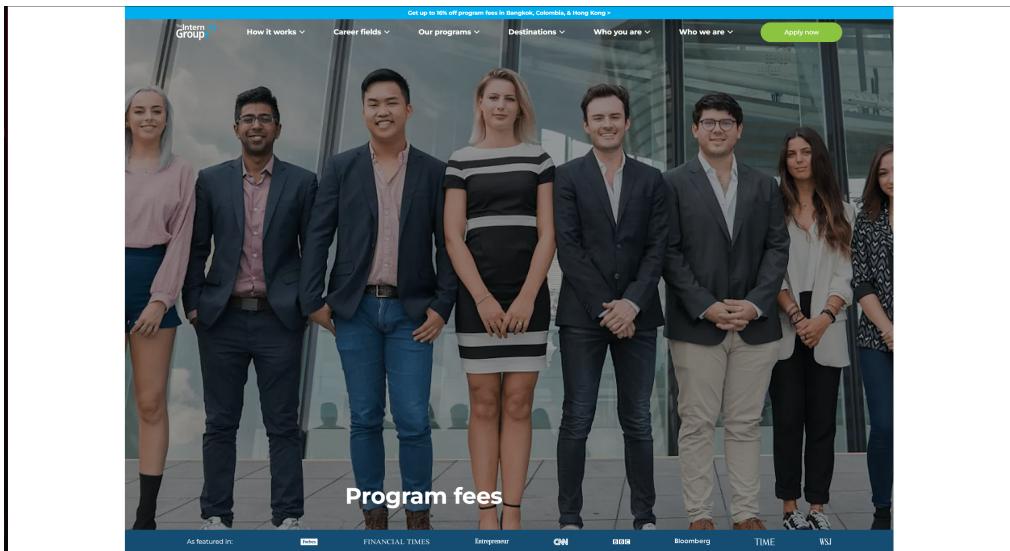


Figure 5: Example of oversized image and breadcrumbs missing. The layout presents white columns on the side on larger screens.

H9 - Help users recognize, diagnose and recover

Final Score: 3

All submission forms display an error message for the specific field, which generally works quite well. However, sometimes the error messages do not provide accurate feedback or are incorrect. For example, in the Apply form if only one character is entered, the error message “You can only enter letters, dashes and spaces” is displayed, instead of indicating that you need to enter more than one character. It may happen other times that the error “One or more fields have an error. Please check and try again.” is displayed, which is too general and does not guide the user to find out where the error is.

H10 - Help and documentation

Final Score: 4

There is not a dedicated documentation section, but there is always a button at the bottom right corner useful to contact an operator in case of help. There are also FAQ sections on some pages (e.g., virtual internships FAQ) and a more general one that is misplaced and a user might not notice it. Finally, there are documents regarding privacy and data processing at the bottom of the site.

2.5.3 MiLE Heuristics Results

Heuristic Code	Heuristic Name	Score
M1	Information overload	4
M2	Consistency of Page Content Structure	4
M3	Contextualized Information	4
M4	Content organization (hierarchy)	5
M5	Interaction consistency	4
M6	Group navigation 1	3
M7	Group navigation 2	4
M8	Structural Navigation	5
M9	Semantic Navigation	4
M10	Landmarks	5
M11	Text Layout	3
M12	Interaction placeholders semiotics	5
M13	Interaction placeholders consistency	4
M14	Consistency of Visual Elements	4
M15	Hierarchy 1 and 2	5
M16	Spatial allocation 1 and 2	3
M17	Consistency of Page Spatial Structure	5

M1 - Information overload

Final Score: 4

The general impression is that the website has a good design despite the amount of information displayed. Although it is common for information to overlap in different categories on a website like this, it does not occur here. Nevertheless, certain enhancements are proposed: certain paragraphs may be condensed; the Career Fields section in the menu bar contains an excessive amount of subcategories, so reducing them or grouping them into broader categories is highly recommended; it is advisable to avoid importing images that do not serve an explanatory purpose.

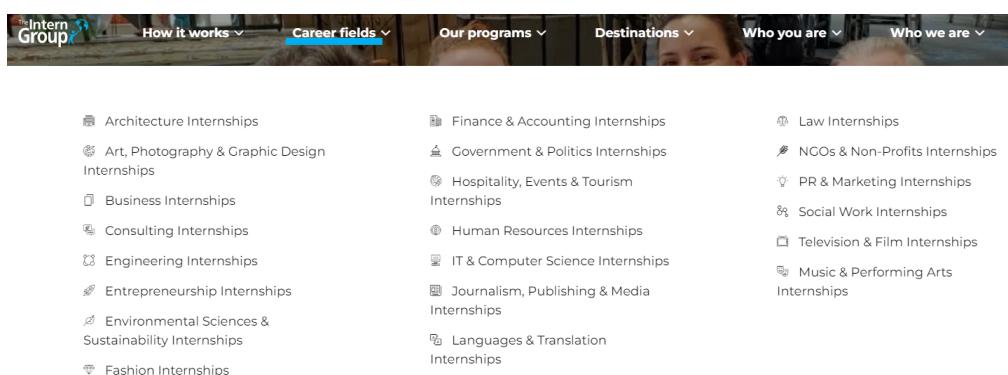
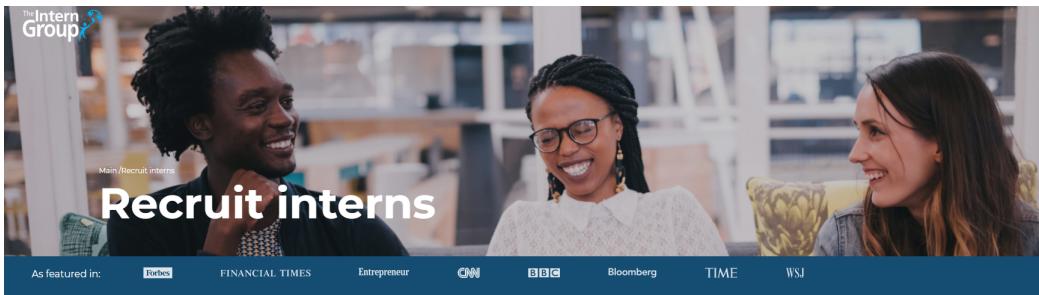


Figure 6: Career Fields section in menu bar

M2 - Consistency of Page Content Structure

Final Score: 4

The majority of pages adhere to this heuristic, leading to a well-organized design. Web-pages belonging to the same category exhibit identical HTML elements. Nonetheless, some pages exhibit structural deficiencies, like the absence of breadcrumbs or top menus, preventing them from achieving the highest score.



Do you want to hire top talent from around the world?

Since 2011, we have been a trusted partner to 3,000+ leading employers worldwide. We help you to hire talent, presenting you with pre-vetted candidates. You decide who to interview and bring on board. Recruiting interns has never been more straightforward.

Figure 7: Landmarks are missing

M3 - Contextualized Information

Final Score: 4

Many pages provide useful clues to help users understand their location within the website, including page titles, breadcrumbs, and cover images representing specific career fields or other images contextualized to the context. However, some pages lack titles or breadcrumbs, and the top menu is not consistently present, leading to confusion and a sense of disorientation among users.

M4 - Content organization (hierarchy)

Final Score: 5

The hierarchy of topics is generally effective, with clear and logical relationships between categories.

M5 - Interaction consistency

Final Score: 4

In general, the pages have the same interaction capabilities, but as stated in the previous heuristic there are some exceptions: pages that don't have breadcrumbs and others that miss the navigation bar.

M6 - Group navigation 1

Final Score: 3

It is possible to navigate among groups of "items" thanks to the (almost) always present navigation bar: with its dense drop-down menus it shows you all the possible categories of a specific topic. However, it represents the only way and for the user could be limiting. For example, if we choose a country (in the category "Destinations") we cannot navigate from the current page to a different country's page without using the navigation bar.

M7 - Group navigation 2

Final Score: 4

Some navigation bar's drop down menus can create a cognitive overload with the presence of a lot of items, sometimes with long names.

M8 - Structural Navigation

Final Score: 5

Navigation within the same group from one element to another is done well, as demonstrated in the How it works page. The first aspect is about a general overview, and users can continue to explore other sections of the same topic by clicking the side menu or using arrows at the bottom to scroll forward or backward. This kind of solution is not present in the Internships for High School Students page and in the Hire Interns one. However, these deficiencies don't affect the final heuristic result.

M9 - Semantic Navigation

Final Score: 4

In general, it is easy to navigate from a topic to a related one thanks to the numerous links inside the text boxes (e.g., on each career field page there are links that take you to the different internships) and to the presence of some lateral sub-menu bars

(e.g., How it works page). However, some pages are more stand-alone, for example, the “Apply Now” one that does not allow you to look at any linked pages.

M10 - Landmarks

Final Score: 5

The landmarks are effective for the user to reach the most relevant parts of the web site: inside the pages there are many links that permit you to navigate to the key parts of the site.

M11 - Text Layout

Final Score: 3

The shared opinion is that the site could benefit from design improvements to enhance readability and usability. For instance, the breadcrumb's color and font size are often inappropriate to be readable. It strongly suggested increasing the use of bold in the pages with a lot of information. Moreover, at the bottom of every page, in the ‘Subscribe’ form, the email font is too bright, making it very difficult to compile it.



(a) Small Breadcrumbs

Subscribe

Want to learn more about opportunities in your preferred career field, abroad or online?



(b) Subscribe Form

Figure 8: M11 Examples

M12 - Interaction placeholders semiotics

Final Score: 5

The interaction is intuitive and very user-friendly, so no improvement is suggested for this heuristic. However, someone in the team found the “media bar” less intuitive: it was not immediately apparent that the bar was clickable and meant to provide information about the company, as it has been mistaken for sponsor logos.

M13 - Interaction placeholders consistency

Final Score: 4

The website maintains consistent use of interaction placeholders. Links within the text boxes are always light blue, and the buttons have the same style on all pages. However, in some cases the “Apply Now” button appears as a blue “Start Your Application” button, which could be confusing to users. In addition, the effect of hovering over the “Get Started” button on the home page is different from that of other buttons.

M14 - Consistency of Visual Elements

Final Score: 4

Overall, the visual elements on the website are consistent with the theme used throughout the site. However, there are some areas for improvement. For instance, the photos at the top of the page are sometimes unnecessarily big and the Hire Interns page has a different footer and structure. Additionally, the Instagram button on the homepage should be unified with the site's style by making only the logo colored. The colors and fonts used in the floating help button do not seem consistent with the rest of the site. Despite these issues, the position of the elements is coherent on all pages, with an image at the top, followed by the title and content. The color pattern is consistent and used throughout the site correctly.

M15 - Hierarchy 1 and 2

Final Score: 5

The allocation of contents and visual elements within a page is appropriate for their relevance.

vance. For example, the main topics are displayed on the Home Page to give an overview of the general structure and to underline the most relevant parts of the website.

M16 - Spatial allocation 1 and 2

Final Score: 3

In general, the content of the site is spatially located in a strategic way thanks to the presence of the dense navigation bar that groups similar items within the same sub-menu. However, the overall space is not well organized: there is too much space between sections, text, and menus. For example, the fields inside the drop-down menus of the navigation bar are too spaced out and the page content is very unbalanced (see for example the Architecture internships page). Moreover, the “Apply Now” button is too much redundant and its space may have been used more wisely.

M17 - Consistency of Page Spatial Structure

Final Score: 5

The pages of the same type have the same spatial organization, in particular, it was noticed that all those present in the same sub-menu are spatially consistent with each other.

2.5.4 Analysis of results

Based on the results of the usability inspection conducted, it can be observed that the system has some strong areas as well as some areas that require improvement.

Overall, the principles of usability are met. In fact there is good use of standards, the content is hierarchically organized in a good way. In addition, the site has many landmarks and shortcuts that make it easier for users to reach parts of the site they are interested in. Very often the content is well structured, with navigation within it facilitated by some tools such as menus or direct links. Overall, most elements are consistent with each other, adhering to a uniform theme. The various pages of the platform are also consistent graphically.

In the discussion of the results, it became apparent that many problems often revolved around the same elements. Such as breadcrumbs, which are not always correct and can lead the user into error. In addition, although the usability heuristics are met in most pages, there are some pages that completely deviate from the rest of the site where most of the issues are concentrated. Other problems concern the organization of the content, which is sometimes a bit overloaded. This could be corrected with a more minimal design, addressing the layout of the text and better allocate the space in some sections.

These considerations were also made based on the type of platform analyzed. The site encapsulates a lot of information, and very often it is difficult to balance ease of use with the large amount of information to be conveyed to the user. However, much of the information contained in the platform is essential to be comprehensive, such as the various fields of specialization, locations, dates, prices, procedures by which to apply.

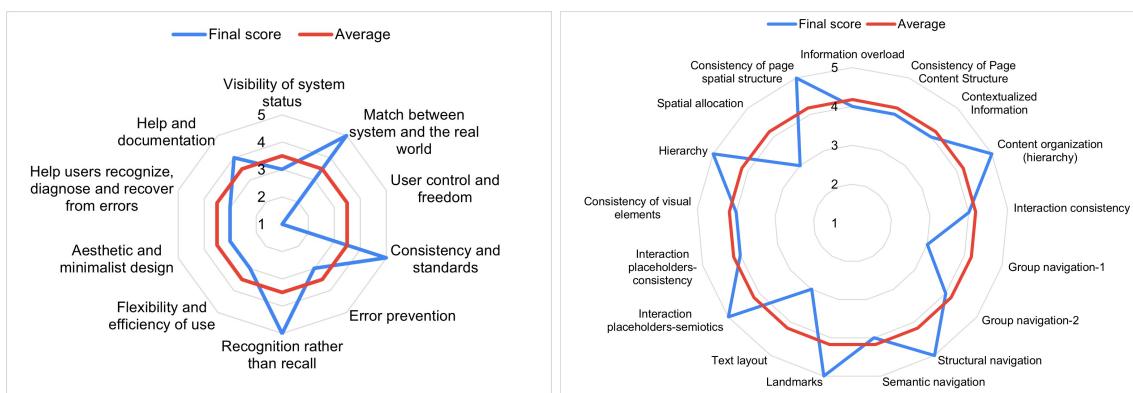


Figure 9: Results charts

3 User Testing

3.1 General method

The User Testing phase fulfills the requirements of a usability evaluation by introducing external users into the study. This phase, complementary to the Inspection one, aims at spotting the presence of usability issues by looking at the website through the eyes of a common user (instead of the ones of experts in charge to verify the compliance with usability quality principles). By testing the website with real users, a feedback on how they interact with the website, what they like and dislike, and what problems they encounter can be retrieved; thus it can help reduce development and support costs by finding and fixing issues. Moreover, it is a fundamental phase because it enables the identification of almost all the usability problems in a website with a relatively restricted number of users: statistics show how with 5 users it is possible to catch up to 85% of the usability problems and how with 15 users it is possible to identify all of them. In our scenario, to identify the usability issues, 20 users were tested. The testing procedure has been structured in two main steps:

- **Task Execution:** selecting one user at a time and ask him/her to perform some tasks;
- **Post Task Questionnaire:** the tested user is asked to fill a form with scores about different aspect of the website.

3.2 Design of the study

3.2.1 User profiles

For our study, it was conducted a selection of target user profiles that was deemed to be more aligned with the platform under analysis. Specifically, it was opted to test the usability of the platform among three user profiles:

- students who utilize the platform to search for internships;
- parents who utilize the platform to search for internships on behalf of their children;
- employers who utilize the platform to advertise internship opportunities.

Our rationale for selecting these user profiles was based on our assessment that they represent a significant proportion of the platform's user base. It is worth noting that the composition of the testing group was not uniformly distributed among the three user profiles; rather, it comprised 40% students, 40% parents, and the remaining 20% employers. This choice was made to ensure that our testing outcomes accurately represent the user traffic on the platform, which is believed to be predominantly composed of individuals seeking internship opportunities rather than those offering them.

3.2.2 Tasks

Task selection was based on two main principles. Firstly, it was aimed to identify and simulate tasks that would represent common user actions during a typical navigation of the site. This approach was intended to provide insights into the usability of the platform by assessing the ease with which users could perform common tasks. Secondly, it was included tasks that focused on critical issues within the platform. These tasks were designed to highlight any significant problems identified during the inspection phase of our study. By selecting tasks that align with these principles, it was aimed to provide a comprehensive assessment of the usability of the platform, identifying both its strengths and weaknesses.

It was required each participant to perform a total of six tasks on the platform. Specifically, each participant was tasked with completing three general tasks that were applicable to all user profiles. Additionally, each participant was required to complete three tasks that were specific to

their user profile class (i.e., student, parent, or employer). This approach allowed us to evaluate the platform's usability across a range of tasks that were representative of the most common user activities. By including tasks that were specific to each user profile class, it was aimed to assess the platform's ability to meet the unique needs and requirements of each user group. General tasks are:

1. Find the stories of other previous participants.
2. Find the awards the company has received and what the media is saying about it so you can understand how trustworthy the company is.
3. Find which Canadian universities have collaborated with *The Intern Group*.

Student tasks are:

1. Find what are the responsibilities of an internship as a software engineer (note: not generic engineer, or chemical or mechanical engineer).
2. Find if April 15 is an available date to start an internship in Colombia.
3. Find whether part-time internships are present and how long they are.

Parent tasks are:

1. Find how much a full program costs in summer (June and July) in Dublin for 16 weeks.
2. Find other parents' experiences.
3. Find what the minimum age is to be eligible to participate in any of the proposed internships.

Employer tasks are:

1. Find out if and how much you have to pay a guy who comes to intern at your company.
2. Download *The Intern Group* brochure.
3. Find ways to contact *The Intern Group* to offer your company's availability.

3.2.3 Evaluation criteria

It was used various evaluation criteria to assess the performance of the platform. Specifically, it was utilized an effectiveness evaluator to determine whether the tasks assigned to participants or not completed at all. In addition, it was measured the efficiency of the platform by calculating the time taken to complete the assigned tasks.

It was used a quantitative approach for post-task data collection. Specifically, after the completion of the six tasks, it was administered a questionnaire to users. The questionnaire included five closed questions that aimed to assess users' enjoyment of the platform from different perspectives. The questions included were:

1. I found the website useful.
2. I found the navigation of the website easy and fast.
3. I never found myself lost.
4. I found all the information I needed where I thought it was going to be.
5. I found the web site clear and visually pleasing.

It was utilized a 5-point scale to gather feedback from participants. The scale required users to rate their level of agreement with each statement on a scale of 1 to 5, with 1 indicating “strongly disagree” and 5 indicating “strongly agree”.

The objective of this questionnaire was to collect quantitative data on users’ perceptions of the platform’s usability and user experience. The closed nature of the questions allowed for easy analysis and comparison of responses among participants.

3.3 Execution of the study

In this section we will briefly describe how the study design choices were effectively applied during the execution of the tests.

The users were given access to a google form containing the tasks and to the platform, either by giving them a laptop with the form and website already open or by sending them links for them to open on their personal device. The moderator gave a brief explanation of what the test consists of, and of the platform, and invited the users to read the tasks carefully. The users were guided through the completion of the form, to guarantee that the tasks were completed in the specified sequence. When the user understood the current task and felt ready to start, the timer was started.

The moderator kept track of the time spent by each user on each task and their comments and observations. During the task, the users were encouraged to speak their thoughts out loud and they were not helped: they didn’t have to feel tested and they should navigate the site as if they were looking for the information in a real scenario. At the end, the users were asked to comment as much as possible on the form about what they thought of the navigation, the structure of the website and their personal experience using it during the specific task. Data was gathered by direct observation of the user by either being in the same room or by remote video call by recording the computer screen and audio.

Once the tasks were completed, the users moved to the next section of the form which was the questionnaire to measure their enjoyment of the platform. The entire process took roughly 30 minutes per user in total.

3.4 Results

Uncompleted Tasks To uniform the data and analyze it accordingly, it was decided to evaluate a task as **not completed** if the time taken to accomplish it was more than *5 minutes*. This choice was made because there was the necessity to avoid the statistics to be influenced by the hints the moderators gave after that amount of time. In addiction, it is necessary underlining that after five minutes the users always shown frustration, a major indicator for describing a task as not completed.

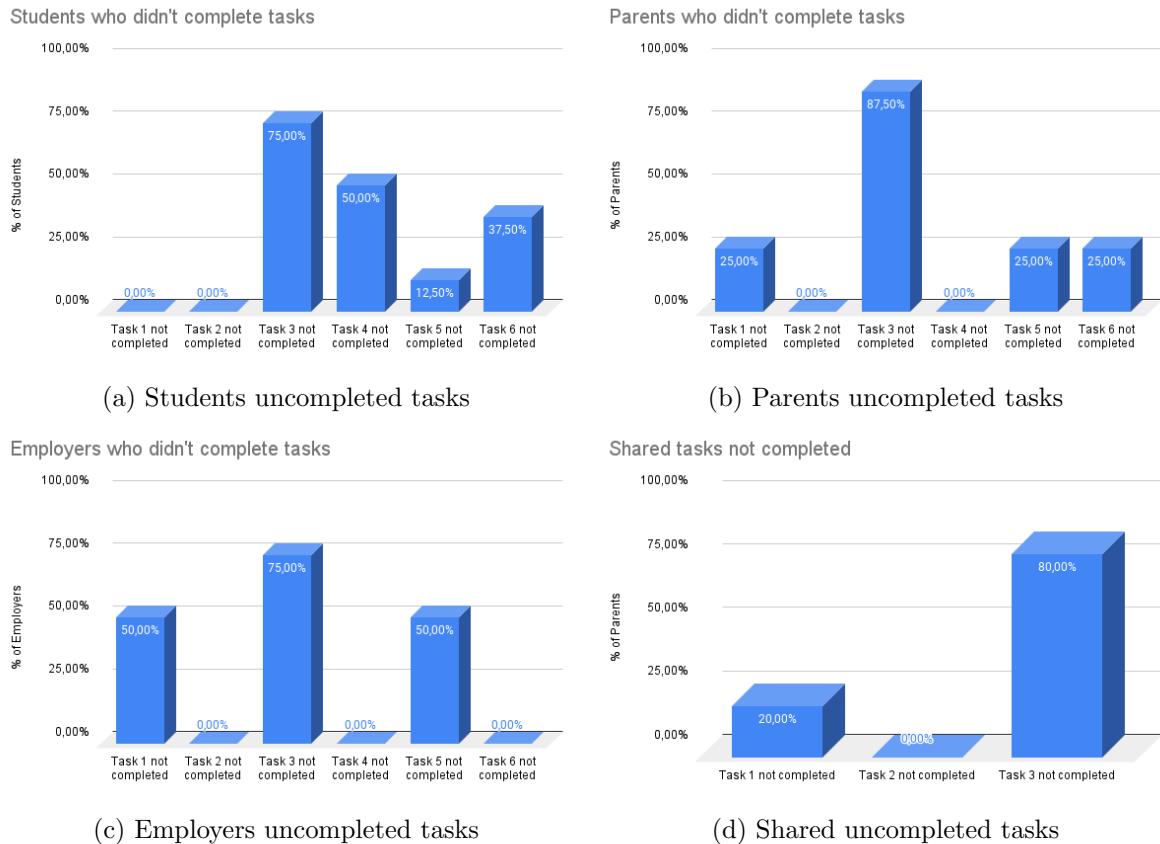


Figure 10: Uncompleted Tasks

Completed Tasks As shown in figure 11 - 12 - 13 - 14 a separate study was made for the tasks completed in less than five minutes. Here, a representation of the time needed by the users for each task is shown. In figure 11 the data is compared to highlight the differences in time, if present, from the different target types. In the remaining plots instead the data is shown separately, because the *task 4*, *task 5* and *task 6* are meant to be different for each target. Obviously the time considered is the average time calculated for each target.

Questionnaire To provide a reasonable overview about the users' site perception, it was decided to re-name the score of the questionnaire as follow: 1 (Strongly Disagree) - Very Poor, 2 - Poor, 3 - Neutral, 4 - Satisfactory, 5 (Strongly Agree) - Excellent. In addiction, the questions have been shown with the aspect they were meant to evaluate. The results have been summarized in figure 15, but a more in-deep representation have been included in the annexes (figure 17).

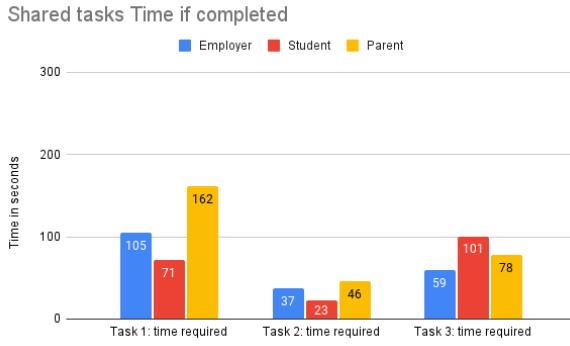


Figure 11: Shared completed tasks



Figure 12: Students completed tasks

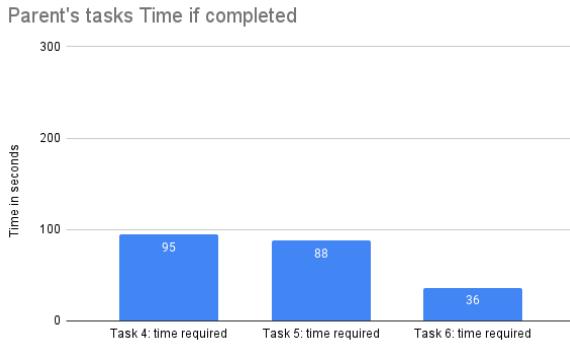


Figure 13: Parents completed tasks

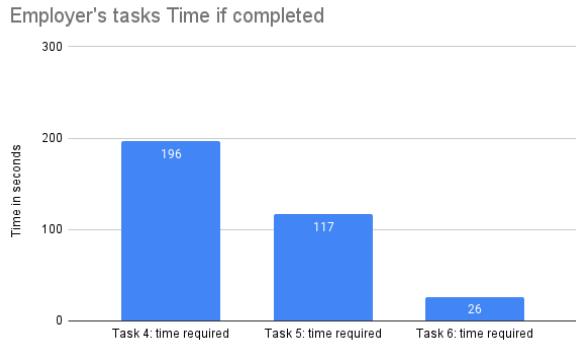


Figure 14: Employers completed tasks

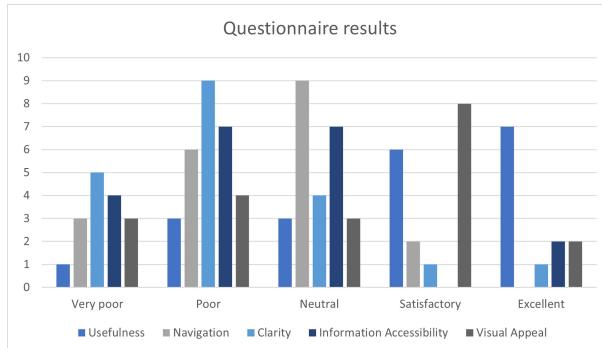


Figure 15: Questionnaire results

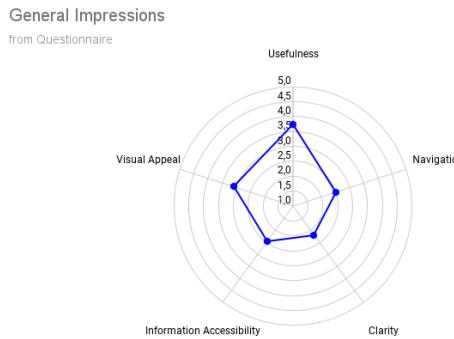


Figure 16: General Impressions

Overall impressions In figure 16 it is shown the average score gathered for each aspect. The users rated the site as useful (probably because of the shared interest on internships) as visual appealing but with lack of clarity, hard to get information from and not satisfying during the navigation process.

3.5 Discussion of results

Once we completed the interviews with each participant, we gathered their most relevant feedback and our own observations of their tasks approach. Subsequently, we reviewed jointly the results and we collected all the results together.

General task 1 - Previous participants stories Several users recommended placing success stories on the Homepage because they were not able to find them there. However, these are already present, so they failed to figure out that those on the main page were the previous stories of the participants. The site is therefore not clear in showing them. Moreover, for many the “success stories” name appeared not appropriate and under a non-obvious section. There have been suggestions such as placing them under the How it works section, or moving the Who we are field to the left to make it more visible, or adding a special field in the navigation bar because they found the stories particularly useful. Another interesting proposal involved inserting a link within the specific Career Field page that would direct you to the success stories of people of that faculty.

General task 2 - Company awards All participants found correct the awards location under the About Us section. Some found difficult to notice the menu on the left which is not clearly visible.

General task 3 - Canadian universities Only a few people solved this task and they succeeded only because they saw the universities on the home page (which they considered too long and dispersive). It would have been impossible to reach the correct page through the navigation bar, in fact they found the location of the universities inside the “An educator” section incorrect: it is an information that could also be of interest to students and parents. Everyone checks carefully into the USA & Canada section, expecting to find the Canadian universities there and, while struggling to find the information, they felt the need for a search engine.

Student task 1 - Software engineer responsibilities It was observed that participants encountered issues related to the organization of the categories of the various career fields on the platform. Some participants reported difficulty locating software engineering among the computer science subjects instead of engineering subjects. These issues suggest that the organization and categorization of career fields on the platform may not be immediately intuitive or easily navigable for some users. Another problem that emerged during the test concerned the layout of text on the platform. Participants found the text difficult to read. Additionally, some participants also struggled to locate the link to access the “software engineering” section, which was not visible as they expected.

Student task 2 - Available date to start an internship Participants found the side menu to be visually challenging to locate and difficult to click in its lower parts due to its excessive length, which prevented scrolling. This finding suggests that the side menu’s design may not be sufficiently optimized for ease of use and may need to be improved to enhance its accessibility.

Student task 3 - Part-time internship As in “Student task 1”, a problem in the organization of the sections is highlighted by participants. Specifically, participants pointed out that the internship section for part-time opportunities was misplaced under the “who you are” section, as opposed to being located under “our programs” which many participants suggested as a more appropriate categorization. This finding suggests that the platform’s section organization could be improved to enhance its usability and better align with the users’ mental model of how the sections should be structured.

Parent task 1 - Cost of a full program in a specific city From the comments of the parents, it was clear that the page is easily reachable and managed to convey the information it wanted to, although structural changes to how the information is displayed would much improve its readability.

Parent task 2 - Find other parent's experiences Most parents thought that the page was not easily reachable for this type of argument, as its position is not very intuitive. All of them wished it be in a more prominent position in the website.

Parent task 3 - Find eligibility information All parents expressed that "Eligibility" was not an appropriate or clear enough term, which caused confusion and the search to take longer. Replacing it with "Requirements" would solve the issue.

Employer task 1 - Find the income of your interns As shown in figure 10, every employers ended up finding correctly the brochure. The average time spent was nearly 3 minutes and 20 seconds, which highlights a shared difficult in finding it. The users complained that they would expect to find the information in the Financing Section.

Employer task 2 - Download the brochure Just half of the employers found the brochure but who did it, passed the tasked in a reasonable time. Probably more data is needed for this task. Some users expected to find the brochure directly in About Us.

Employer task 3 - Contact the company This task was successfully passed by every employer in less than 30 seconds. The InternGroup made very simple contact them, probably the most important task needed for this type of target.

4 Conclusions

4.1 Comparison of the results

A series of results were collected from both the Inspection Evaluation and User Testing phases, which revealed both positive and negative aspects of the website, specifically:

- + : the website has in general a coherent color pattern and design, it has redundant elements that should help you find the information you need;
- : the website has several errors in the management of breadcrumbs and in the placement of the information within the fields of the navigation bar. It is too complex and the pages are too dense, which make navigation slower and which make it harder to find the relevant information: they should be more easily accessible, often you lead in the correct page but you are not able to find the information you need for the large amount of unnecessary items;

4.2 Suggestions for redesign

Following a comprehensive analysis of expert inspection and user testing, several platform usability problems were identified. These problems are summarized in this section, and improvements to critical parts of the platform are recommended. Addressing the identified problems and implementing the proposed improvements has the potential to significantly improve the usability of the platform, resulting in increased user satisfaction and engagement.

Uniform breadcrumbs It was identified that breadcrumbs are a critical component of platform usability. To improve the usability of the platform, it is recommended that breadcrumbs be standardized on all pages. Also, on pages where they are not present, breadcrumbs should be included to clarify the hierarchical organization of the pages, which can then be reflected in the breadcrumbs.

As an additional step to improve the usability of the platform, one might consider making the breadcrumbs dynamic and reflecting the user's path. Although this last suggestion is not strictly necessary to follow, it could be a useful consideration to improve the overall user experience.

Apply now page redesign It is recommended that the *Apply now* page be completely redesigned to enhance its usability and align it better with the platform's overall user interface. To achieve this, the following recommendations have been made:

- Add a top navbar and breadcrumb to provide better navigation and orientation for the user.
- Uniform the graphic design of the apply now page with the rest of the site to maintain consistency and improve visual aesthetics.
- Optimize the use of space within the page by balancing content to avoid moving it too far to the left and leaving significant empty space to the right.
- Provide a reference to the user about their progress during the application process by adding a side menu with completed and remaining fields and making the separation of the steps involved in the application process (e.g., step 1: personal information, step 2: program details) clearer.
- Add links to pages on the site for semantic search of topics to facilitate quick access to the details of the program the user is interested in.
- Allow undo actions for users, for instance, when entering their CV to prevent the loss of data and improve the user experience.

Hire intern page redesign It is recommended that the *Hire intern* page be completely redesigned. Based on our observations, the following improvements to the page could be adopted:

- Add a navigation bar at the top of the page for easy orientation and usability.
- Reorganize the layout of the page to make it clearer and less confusing for users. This could be achieved by dividing the content into several sections and providing a side menu to allow users to navigate between them.
- Standardize the footer layout to create consistency across the platform.

Speed up landmarks It is recommend that certain landmarks on the platform be repositioned to enhance its usability. During the study, it was observed that the "Apply now" buttons were repeated excessively, which caused redundancy and slowed down the users' interaction with the platform. To mitigate this issue, it is suggested making these buttons more dynamic to increase the speed of use. For example, clicking on the "Apply now" button for a specific program should take the user directly to the application page, with the fields relevant to that program already pre-filled. Currently, clicking on the "Apply now" button redirects the user to the same page, which slows down the application process.

Minimalist design It was identified several design-related issues that require attention. These include:

- The press bar, which appears on all pages of the site, is not deemed necessary and could be eliminated. It is our belief that its presence does not add significant value to the user experience.
- The menu, as currently designed, contains numerous items and appears to be overloaded. It is suggested that grouping some of the items would enhance its usability. For instance, in the “Who you are” section, it may not be necessary to list every single type of student; instead, a more general category such as “students” could be used, with subcategories included as needed.
- The responsiveness of the platform on various screen sizes, including those with very large resolutions, needs to be addressed.

Increase accuracy in preventing form errors It is recommended that the platform’s prompts be improved to provide more explicit instructions and guidance to users, thus reducing the likelihood of errors.

Content organization Certain aspects of the platform’s content organization may not be optimized for usability. For instance, our analysis revealed that grouping career fields into macro categories could enhance the navigation experience for users by providing them with a clearer and more intuitive structure. Additionally, our study identified a need to reassess the overall structure of the site to ensure that the division between topics is clear and intuitive for users. This was exemplified by the difficulty some users experienced when searching for part-time internships under the “Our programs” section instead of “Who you are”

Add search bar Consider adding a bar to search for content within the site.

Improve text layout Some areas of the site do not provide adequate visual contrast between the text and the background, which can make the text difficult to read and therefore less accessible to users. Improving the visibility of text across the site, through the use of appropriate font size, color contrast, and formatting, can enhance the user experience and make the platform more accessible to all users.

Improve consistency and spatial balance of pages It was identified a number of minor consistency problems. For example, it was observed that cover images sometimes appeared too large, and that titles were sometimes moved to one side, creating visual inconsistency across the site. In addition, it was found that certain sections of the site could make better use of screen space by avoiding large areas of blank space that contributed to an unbalanced visual presentation.

4.3 Personal observations

The usability inspection allowed us to find the usability problems in the evaluated user interface design by judging its compliance with recognized usability principles (the “heuristics”). Instead, with the User testing we could evaluate how easy, intuitive, and user-friendly the website is by having end-users perform tasks and give feedback. By combining these two methods, we were able to identify and prioritize the weaknesses and opportunities for improvement of the website design. We understood that these two methods are essential for designing a website that is user-centered and intuitive, and that they can help save time (and money) by identifying and addressing issues early in the design process, rather than after the website has been launched.

5 Annexes

Heuristics	Mattia	William	Angelo	Marco
H1: Visibility of system status	2 No breadcrumbs when selecting apply now. Breadcrumbs present in most other pages (missing in program fees), but they have a very small font, redundant main information, sometimes confusing flow (especially in the Our programs area of the website).	4 Surfing within some pages lead you to get lost: breadcrumbs misses or are too small to be seen. Sometimes breadcrumbs doesn't respect the path followed clicking some links. However, the majority of the pages have been configured well enough to keep the users informed in which position of the site they are.	4 In general, the application always returns correct feedback to the user. For example when filling out a form upon submission feedback is received on the successful operation ("contact us!" form, form in https://www.theinterngroup.com/educators/additional-resources/ ...). Also, even in some sections where a filter can be applied, a little wheel is displayed while it is loading to let you know that the system is processing the operation (https://www.theinterngroup.com/destination/virtual-internships/program-fees-dates/ , https://www.theinterngroup.com/career-fields/ , https://www.theinterngroup.com/about/team/). Breadcrumbs are also correctly implemented, except for some consistency problems (some breadcrumbs are missing but in similar pages they are there, so the problem is about consistency of page structure, for example in https://www.theinterngroup.com/educators/partnership-benefits/). They make you understand the structure of the website, and you can navigate the hierarchy by clicking links to pages.	3 • In general, the pages have the current position inside the site, so it's easy to understand our current location: they have interactive breadcrumbs that permit you to go to the previous pages without using the left arrow of the browser. However there are some cases where the breadcrumbs miss -> Navigation Bar analysis. oCareer fields: if we click "Learn more" at the bottom of the pages that are under this section (e.g., https://www.theinterngroup.com/career-fields/international-hospitality-internship/) we go in a new one and we are forced to use the navigation bar to go back. oOur programs: from the page https://www.theinterngroup.com/destination/global-internship-program/ if we click "program fees" we go in a new page that don't have any clue with the previous. oWho you are: if we click on "An employer" we jump in a page https://app.theinterngroup.com/hire-interns that has not finer grain breadcrumbs and that doesn't have a navigation bar, so we are forced to directly jump in the main page if we want to go back. • The Apply now page is completely separated and does not have breadcrumbs. We can return to the Home Page by clicking the logo. This might not be a problem since it should be the last page we visit to apply. • The "Data protection policy", "Terms and conditions" and "Privacy Policy" pages, reachable through the buttons at the bottom of all the pages have no breadcrumbs and clue about how we reach these. This might not be a problem since there is always the navigation bar and since in very rare cases people go to these pages.
H2: Match between system and the real world	5	5 I don't have any suggestion to improve the system language.	4 There is no strong reference to the real world in the graphic aspect. It does happen, however, in some labels that try to recall phrases familiar to the user. For example, many items in the menu are questions that the user browsing the website might ask.	5 • The website sufficiently accomplishes this heuristic: the language is coherent with the target people that visit the site and aims to convince you to apply to an internship.
H3: User control and freedom	4 In the apply now section, you can only leave by closing the browser page or by pressing the brand logo on the top left to go back to the main menu. In itself it's fine, but a clearer option like a "go back" or "return" button could be implemented.	3 A lot of "apply now" buttons are present in each page, so clicking it is very likely to happen. However, "apply now" page is one of the page I found that misses breadcrumbs. There is no other way to escape than doing it by the browser buttons. In addition, in the page Apply Now, there is the possibility to not upload your resume, but if I load a file I cannot remove it without reloading the page.	3 Very often it is not possible to go back to the page that the user was previously visiting, except by using browser tools. This happens, for example, on the page https://app.theinterngroup.com/apply or https://app.theinterngroup.com/hire-interns , the only possibility for the user to go back and click on the logo that returns to the homepage.	1 • In some pages there are no breadcrumbs that permit you to go in the previous page (see H1) • There is not a redo action in the Apply page: if we fill all the fields and click on "Continue to schedule your interview" we will be redirected to a new page to choose the date of the interview. From this new page I cannot go back to the form, if we want to change some information that we have previously inserted we cannot do, I am forced to use the logo button to return to the home page.
H4: Consistency and standards	5	5	5 The web application complies fairly well with the conventions used for this kind of application. For example, the logo if clicked correctly leads to the home, a correctly placed a floating button in the lower right corner, the footer is placed at the bottom with the contact information and the information about data processing and privacy, also the box to accept data processing is correctly placed at the end of the form.	3 • The Webpage does not have a Search Field and nowadays it is standard for most of the sites. • The logo is clickable.

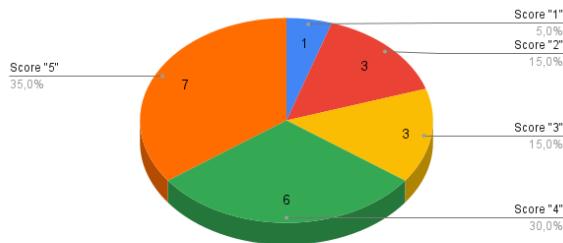
Heuristics	Mattia	William	Angelo	Marco
H5: Error prevention	5	4	2	4
		In Apply Now page I tried to broke the code by sending invalid data but without success. The apply now form seems very solid and the error messages work preatty well. However, sometimes the menu bar or breadcrumbs misses leading the undo action to be done via the browser buttons.	Breadcrumbs are navigable so as to provide the user with a way back, but they are not dynamic so they do not refer to the path the user followed but to the hierarchical structure of the pages. In general, forms do not have any techniques to prevent error while the user is typing in something incorrectly, such as the form in the floating help button. In the apply form (https://app.theinterngroup.com/apply) a warning is displayed when moving to the next field. Although some checks in the input fields are not quite accurate.	<ul style="list-style-type: none"> The bottom field to insert our email does not allow to understand if we are doing some mistakes: the color of the letters is too light (gray) and there is no check of correctness of the entered email (it might be an invalid email). The "Apply Now" form is well done: the alerts are shown in real time during the compilation and not at the end when we confirm the operation. In the "Contact Now" card the check is done just after we click the "Send" button but in thise case is not a big deal.
H6: Recognition rather than recall	4	5	4	5
	Landmarks are not present in every page, so sometimes it is hard to retrieve information in another part of the website.		Some dropdowns make it easier for the user to fill in certain fields, such as for selecting "career fields," "destinations," and "program fees" on the home page, or in the form at https://www.theinterngroup.com/educators/additional-resources/ it is possible to choose among universities by scrolling through a list and filtering them with initials.	<ul style="list-style-type: none"> During the navigation of the Website the User is well guided thanks to the dense Navigation Bar so he/she doesn't have to remember much information. The "Apply Now" form is well done: there are a lot of drop down menus that minimize the user's memory load.
H7: Flexibility and efficiency of use	2	3	4	3
	Completely missing in some pages (apply now, who you are -> an employer). If you press on "who you are" you get sent to the applicants page, which has section pages from the "how it works" landmark dropdown, and leads to the same page as pressing the "FAQs, financing & more" option of the dropdown. The virtual/remote option in the "Destinations" is also redundant with one from the previous dropdown, and it doesn't belong thematically in that landmark. Also, the dropdowns just look graphically terrible.	the apply button is spammed everywhere but there isn't a real way to faster the apply form. For instance at the bottom of some pages some buttons/forms seem to be placed for directly apply to that specific intership, but you are just redirect to the standard Apply Now page without any form field already compiled.	There are many buttons that take you back to contact forms for various sections. For example, the "Apply now" button is always on the top menu, and it allows the user to easily access the form to apply; the floating button is also a quick shortcut to provide the user with a way to contact the organization.	<ul style="list-style-type: none"> About Web accelerators (landmarks) there is the logo on the top left that permits to return in the Home Page and the "Apply Now" button on the top right that opens the page to fill the form, so in any part of the page we can jump in the "apply" form. However, the "Apply Now" button is too redundant and it always opens the same page without auto-filling some fields, so it could be boring for more experienced users. For example in the page https://www.theinterngroup.com/career-fields/international-architecture-internships/ there are 8 equal buttons and many of them could accelerate the filling process by auto-inserting fields such as "Architecture" in Career Field or "New York" in destination, etc....
H8: Aesthetic and minimalist design	3	4	4	2
	Some elements have been previously stated in the landmark heuristic section. I think the strip of news outlets is unnecessarily present all the time. Also the "program fees & start dates" page opens up to a huge image of people with the title of the page in the bottom and it's necessary to scroll down to reach anything actually useful. The title of the page is unnecessarily huge, while other more useful elements are much smaller, like the breadcrumbs or the logo to go to the main page. Also, the layout of the website does not scale well to higher resolution monitors, as the page presents a white column on both sides. The footer of the website could take less space by rearranging some elements.	Probably some animations could be better and the menu bar is very dense to be called a "minimalist design". However, for being a site from which you have to get a lot of informations it is well designed.	Overall, the site respects a minimal design, except for the floating "contact us!" button, which is likely to be confusing on certain screens, especially when there are other contact forms, where the user may not understand which form to fill out.	<ul style="list-style-type: none"> The design is not minimal: the "Apply Now" button is shown too much times, the navigation bar is not too much aesthetic: the drop-down menus of the Bar are too dense, don't work correctly if they are opened when we are at the top of the page, and when we scroll down the page it immediately changes color to white in an immediate and strange way. The photos are not relevant and useful to understand the concepts. The dialog contains a lot of not useful information and don't go straight to the point.

Heuristics	Mattia	William	Angelo	Marco
H9: Help users recognize, diagnose and recover from errors	5 All submit forms display an error message for the specific field.	5 I didn't find any error messages not understandable by a normal user	1 Form fields do not give accurate feedback and sometimes it is wrong. Such as in the form at https://app.theinterngroup.com/apply if a single character "a" is entered, the error message "You can only input letters, dashes and spaces" is displayed instead of specifying that more than one character must be entered.	4 •The bottom field to insert our email does not work, after confirming the email it requires a lot of time to display a notification and then it shows "There was an error trying to send your message. Please try again later", so we do not understand if there was an error on typing the email, a connection error or another type of error. •Good recovery from errors in the "Apply Now" form and in The "Contact Us" card that explicitly says what we have done wrong.
H10: Help and documentation	5 The application process seems pretty well explained during the filling of the forms and in the website dedicated section.	5 The site itself is very explanatory and there is always an operator available for assistance.	4 Documents are provided regarding privacy, data processing, and there is a floating button with a useful form to ask for help in case of problems. In addition, there are FAQs in some sections to help users who run into common problems and doubts.	3 •There is always a button at the bottom right to contact an operator in case of help but there is not a documentation section. In some pages there are useful FAQ specific sections (https://www.theinterngroup.com/destination/virtual-internships/faqs/). There is also a more general FAQ section (https://www.theinterngroup.com/applicants/faqs/) but its difficult to find (Who you are -> FAQs, financing & more).
Information overload	4 Some paragraphs could be shortened, but important information is highlighted in bold.	4 Even if the site itself is very dense, the pages are well designed and don't overlap informations. However, the section Career Fields in the menu bar has too many subcategories.	4 In general, the level of information is not on overload. Only in some sections have I encountered this problem such as in https://www.theinterngroup.com/destination/global-internship-program/ there are cards for various destinations in the overview and then they are repeated in the same way in the destination specific section.	3 • The load of the information could seem a lot due to the length of the pages, however they contain a lot of not useful images and text boxes that don't go straight to the point. My impression is that they have used various tricks to unnecessarily lengthen the pages (add images, diluted text boxes, etc...).
Consistency of Page Content Structure	4 As stated for the landmarks, some elements are redundant or don't belong in the landmark.	5	3 Most pages of the same type have the same elements and the pages have a consistent structure among them. Only in a few cases does this not happen; this problem can be solved by unifying the structure of the pages, as has already been done for other parts of the site that respect this heuristic. For example at https://www.theinterngroup.com/educators/partnership-benefits/ the breadcrumbs at the top of the page is missing, the structure of the page https://app.theinterngroup.com/apply differs greatly from the others, the top menu is also missing as also on the page https://app.theinterngroup.com/hire-interns .	4 • In general yes, except for the pages under the "Who you are" section that are structured in very different ways (e.g., the page under the "An employer" field (https://app.theinterngroup.com/hire-interns) seems a completely separated page that does not even have the navigation bar).
Contextualized Information	4 There's a breadcrumbs trail on top of the page title and a list of section titles on the left side of the page. This gives an overview of the section the user is in but no reference to the outside.	3 As already told before, in some pages the lack of menu bar or breadcrumbs lead the user to feel lost inside the site	4 Many pages have the breadcrumb and a title in the header, and a side menu that lets the user know what context it is in. Cover images also help with this, such as in the "career fields" section, cover images represent the specific field so the user can understand it right away. This aspect is not well developed on some pages such as the apply page as there is one long form that is very scattershot; it would be easier for the user to have a form to fill out in steps and guide them through the process.	3 • Most of the pages yes: they have interactive breadcrumbs that permit you to go to the previous pages without using the left arrow of the browser. But there are some cases where the breadcrumbs miss: • Career fields: if we click "Learn more" at the bottom of the pages under this section (e.g., https://www.theinterngroup.com/career-fields/international-hospitality-internship/). • Our programs: from the page https://www.theinterngroup.com/destination/global-internship-program/ if we click "program fees" we go in a new page that don't have any clue with the previous.

Heuristics	Mattia	William	Angelo	Marco
Content organization (hierarchy)	5	5	5	5 •In general, I would say yes, the hierarchical organization of the topics is appropriate.
Interaction consistency	4 Not all pages share same interaction capability. As stated before, for example the page for employers lacks the landmarks.	5 The interaction	5 Overall, the pages are consistent with each other. Except for rare cases where, for example, breadcrumb is missing (e.g., https://www.theinterngroup.com/educators/partnership-benefits/)	3 •Inside the section "Who you are", if we click on "An employer" we jump in a page https://app.theinterngroup.com/hire-interns that doesn't even have a navigation bar •Pages that don't have breadcrumbs (already discussed)
Group navigation-1	4 Yes using the landmarks for the destinations for example. Not so much if one wants to use the breadcrumbs		1 it is difficult to navigate between elements that make part of the same group. For example in "Career fields" once we choose a field we cannot go to the next one except by going back, or for example in https://www.theinterngroup.com/career-fields/it-and-computer-science-internships/ if we choose an internship, then we cannot view the next ones as well, or it also happens for https://www.theinterngroup.com/destination/global-internship-program/destinations/ that we cannot navigate from destination to destination.	4 •The main group of items are organized in the navigation bar, so they are always accessible from any part of the site. However, the fields inside the navigation bar could be too many.
Group navigation-2	5	5	3 A few items in the menus create cognitive overload as in the case of the "Career fields" menu where there are really a lot of items, with very long names. One solution might be to reduce the number of fields, but if this is not possible, grouping some items together might help the user to orient himself. The "Who you are" menu also has many items for each individual target user.	3 •The Navigation Bar could create Cognitive Overload because of the presence of numerous fields.
Structural Navigation	5	5	4 Navigation within the same group from one element to another is done well e.g. in https://www.theinterngroup.com/how-it-works/ the first aspect is about a general overview and then to continue to explore other sections of the same topic , the user can either click the side menu, or at the bottom where there are arrows to scroll forward or backward. This kind of solution is not always present such as at https://www.theinterngroup.com/internships-for-high-school-students/ , or https://app.theinterngroup.com/hire-interns are very long pages without any navigation within the topic.	5 •Yes, thanks to the presence of sub-fields inside the pages and the various links in the texts.
Semantic Navigation	5	4 In "how it works", at the end of the article a "previous/next category" buttons are present, making pages easy to read. Other pages are more a "stand alone pages" and going to the next category means to click to the lateral sub-menu bar. This, for me, doesn't affect the navigation experience.	3 At the end of many pages are links that take you back to semantically related topics. It doesn't happen on the Apply page in the internship type choice section that might take the user back to the page of the various types of internships he might be interested in seeing.	5 •Yes, thanks to the presence of numerous links inside the text boxes, which refer to the linked pages.
"Landmarks"	5	5	4 There are some landmarks in the site that allow the user to quickly reach certain pages such as the one for the apply. On certain pages they are not well placed though.	4 •The most important landmark is the "Apply Now" button that is always present in the Navigation Bar and throughout the pages a varied number of times. For sure they are effective, but they are too many.

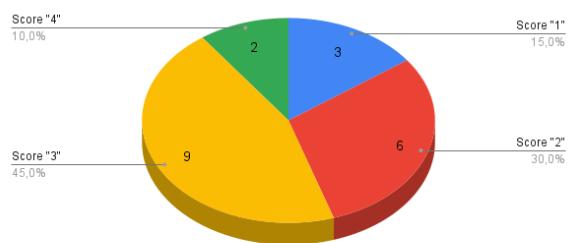
Heuristics	Mattia	William	Angelo	Marco
Text layout	3 No, the title is too big and the breadcrumbs too small. The rest of the text size in other elements of the web pages is fine.	4 In general is very easy to read informations from the site. However, the breadcrumbs are too small to be seen clearly in all pages.	4 in general text layout is fine, some sections are not consistent, and it is not always well readable by the user. I would extend the use of bold to highlight certain parts, which is already present in some sections, to all sections.	3 •The font and the dimension are not really appropriate in the pages with a lot of text (e.g., https://www.theinterngroup.com/destination/internships-in-madrid/): it is difficult to concentrate our attention in the thick writings. Moreover, at the bottom of the pages, in the Subscribe field the inserted email is too light, and it is difficult to read.
Interaction placeholders-semiotics	5	4 On the website, most things appear to be user-friendly, except for the "media bar" that is present on all pages. This bar is clickable and leads to a page containing articles about the company. Initially, it was not immediately apparent to me that this bar was meant to provide information about the company, as I had mistaken it for sponsor links at first glance.	5	5 •The interactive elements are intuitive, and they behave as expected.
Interaction placeholders-consistency	4 Sometimes the green "apply now" button additionally appears in other parts of the page as a blue "Start your application" button (i.e. in the MBA/Masters student page).	4 The site mostly respects this heuristic but there are pages that have a slightly different layout leading to other heuristic problems (https://app.theinterngroup.com/hire-interns)	5 hover of "get started" button in home different from other buttons.	5 •All the buttons have rounded borders and the "Apply Now" one being the most important stands out thanks to its green color. •The links inside the text boxes have always a light blue color.
Consistency of Visual Elements	4 Sometimes the photos at the top of the page are unnecessarily big, as if to fill the screen and put the news outlets strip as a footer of the page.	5	4 Many elements are consistent with the theme used throughout the site, however, this is not always the case. The Instagram button in the home I would unify it with the style, making only the logo colored, the colors and fonts used in the floating help button doesn't seem consistent with the rest of the site.	5 •The position of the elements is coherent in all the pages (at the top an image with the title and then the content) and the color pattern is consistent and used throughout the site correctly.
Hierarchy-1	3 I didn't really find any examples apart from bigger text font size for titles and paragraph	5	5	5 •The Home Page gives us a broad overview showing the general contents of the website emphasizing the most important pages. •Regarding the other pages the contents are appropriately allocated for their relevance.
Hierarchy-2	3 I didn't really find any examples	5	5	5 •The visual elements are appropriate for their relevance, in particular the "Apply now" button is always present in order to easily go in the apply page.
Spatial allocation-1	3	5	2 Space is not balanced within all pages. Very often there is too much space between sections, between text, and even in menus. Also on some pages the content is very unbalanced.	3 •Yes, in general the semantically related elements are generally organized in groups (e.g., all the career fields are under the section career fields). However, I found the general FAQ section (https://www.theinterngroup.com/applicants/faqs/) difficult to find (Who you are -> FAQs, financing & more) and in the wrong place.
Spatial allocation-2	3	5	2	5 •Semantically distant elements belong to different groups.
Consistency of Page Spatial Structure	5	5	4	4 •In general yes, except for the pages under the section "Who you are" that are structured in very different ways (e.g., the page under the "An employer" field (https://app.theinterngroup.com/hire-interns) seems a completely separated page that don't even have the navigation bar).

Questionnaire: Question 1



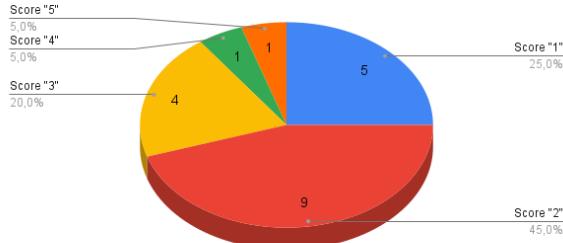
(a) Question 1: Usefulness

Questionnaire: Question 2



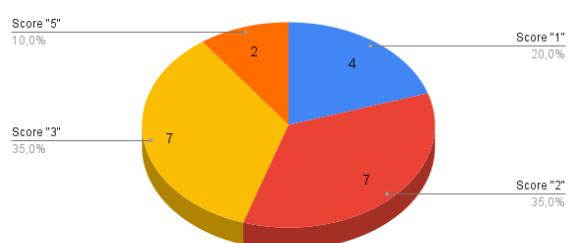
(b) Question 2: Navigation

Questionnaire: Question 3



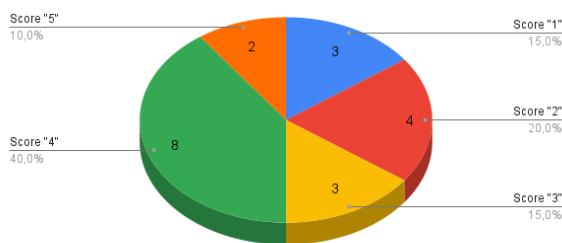
(c) Question 3: Clarity

Questionnaire: Question 4



(d) Question 4: Information Accessibility

Questionnaire: Question 5



(e) Question 5: Visual Appeal

Figure 17: Questionnaire