

Heuristic Evaluation

Part I: Your Name

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Part II: Project Description

ExerLis is a prototype about an application that allow the user to learn, practice and use through conversations the Italian Sign Language.

Part III: Evaluation Execution

I conducted the heuristic evaluation initially in-person and at the end to complete the final common evaluation.

I started to read the README.

The README that was given to us completes the document and explains well how the prototype works and **What** are its limitations.

For each task, I've tried to use all the scenarios available, and I didn't find any problem that does not permit to accomplish them.

Sequentially, I've analyzed all the application exploring all the sections. For each section I wrote violations that I have found assigning it to a certain category, writing all the required details including the **Severity**.

At the end of the individual evaluation, I've performed within my team a group evaluation **where** we've analyzed our violations and we merged the common and the different ones by using the average metric to compute the **Severity** of the violations that were similar.

Part IV: List of Violations

Report the heuristics' violations you identified. Each of them must be numbered sequentially, formatted as follow:

[Issue #]. [Heuristic #] [Heuristic Title]

Where: *[Where the issue occurred – task, step, page]*

What: *[Description of the problem]*

Why: *[Reason **Why** it violates the heuristic]*

Severity: *[0-4, according to Nielsen's **Severity** rating]*

1. H5 Error Prevention

Where: All "Learn a new sign" Categories: Word, Topic, and Alphabet.

What: When clicking on any of the other icons: Exercise or Conversate, it does not display to me the consequences it might result of losing this home page.

Why: I do not know the full status of my action and thus, a scenario that I did not expect happens.

Severity: 3

2. H3 User Control and Freedom

Where: Exercise section → Each exercise

What: The app does not have a clear button to abort the execution of an exercise. There's only the general back button.

Why: If the user wants to exit from the exercise section, he does not have a clear and immediate way to do it.

Severity: 2

3. H10 Help and documentation

Where: The entire application

What: The app doesn't explain the relationship between points and user profile. Is there a challenge, a classification? **What's** the level?

Why: The user can be confused and doesn't have any knowledge about the problems mentioned above

Severity: 3

4. H10 Help and documentation

Where: Conversation section

What: The app, on the conversation section, displays some friends

Why: How the user can add a friend?

Severity: 3

5. H7 Flexibility and efficiency of use

Where: Sidebar

What: The app doesn't have any home button; I can return to the home page only through a repeated pushing of the buck button

Why: The user wants a shortcut to return to the home page to access on the three sections of the application with its own explanations

Severity: 2

6. H5 Error Prevention

Where: Learn section → each exercise

What: When engaging in a learning activity and selecting one of the task-related buttons in the sidebar, the app fails to provide any feedback or confirmation message to avoid disrupting the current screen.

Why: In the absence of feedback or a confirmation message, if the user mistakenly presses a button on the sidebar, they are required to restart the activity from the beginning.

Severity: 2

7. H5 Error Prevention

Where: Exercise section → Fingerspell the word section → Exercise started

What: The app doesn't provide any feedback about checking an alphabet during a fingerspell exercise

Why: The user can lose his progress without any warning

Severity: 3

8. H4 Consistency and Standards

Where: Learn section → Learning ended

What: In the learn section of the app, unlike the other ones, the user after finishing the learning doesn't come back to the main initial page of the section.

Why: It's an internal inconsistency, the other section after finishing a task redirect to the main page of the related section.

Severity: 1

9. H2 Match between system and real world

Where: Extended sidebar

What: On the extended sidebar a back button appears

Why: The user doesn't know if the back button is to close the extended version of the sidebar or to come back on previous page

Severity: 2

10. H1 Visibility of system status

Where: Exercise section → Any exercise session → Last exercise

What: The app after the completion last exercise of the session doesn't provide any feedback about the correctness or not of the latter.

Why: The user doesn't know if the answer of the last exercise is correct or not

Severity: 4

11. H1 Visibility of system status

Where: Conversation section → Outgoing call

What: The app after a user starts a call with a friend, doesn't display any feedback

Why: The user wants a screen with an interface that signal an outgoing call

Severity: 3

12. H5 Error Prevention

Where: Exercise section → Guess the sign

What: The application doesn't display any feedback if I press the "Reveal the word" button.

Why: This action causes, automatically, 0 points to be awarded

Severity: 2

13. H1 Visibility of system status

Where: Exercise section → Guess the sign

What: The “Skip World” button

Why: The user doesn’t know if it’s a temporary skipping of the questions (he can come back later) or if the skip is definitive.

Severity: 3

14. HN Non-heuristic issue

Where: Exercise section → Sign the world

What: The text in the bottom-right part that report the possibility to fill a form to communicate eventual problems

Why: The text it’s almost unreadable as the font is too small.

Severity: 1

Part V: Summary and Recommendations

Report in the table below the total number of identified violations.

| Heuristic | # violations |
|---|--------------|
| H1: Visibility of system status | 3 |
| H2: Match between system and the real world | 1 |
| H3: User control and freedom | 1 |
| H4: Consistency and standards | 1 |
| H5: Error prevention | 4 |
| H6: Recognition rather than recall | / |
| H7: Flexibility and efficiency of use | 1 |
| H8: Aesthetic and minimalist design | / |
| H9: Help users recognize, diagnose, and recover from errors | / |
| H10: Help and documentation | 2 |

Finally, write 1-2 paragraphs covering general impressions and any recommendation you have for improving the interface.

ExerLIS is an innovative application prototype with a beautiful intention: to make learning and practicing sign language accessible to everyone. I truly appreciate the purpose of this application because Italian Sign Language, and sign languages in general, are not widely known, and finding a clear and simple way to learn them can be challenging. With ExerLIS, there is potential for an efficient solution to this problem, and I hope that this project will continue to flourish.

In terms of the overall aspect, the application interface briefly showcases good usability, with a clear division into three categories: Learn, Exercise, and Conversation. The use of rounded shapes adds a pleasant touch to the general usability. I particularly admire the choice of a minimal style, which provides an almost modern design that aims to keep the user focused solely on what is important. This is further emphasized by the clear and functional icons that serve their purposes effectively. While executing the three tasks, I did not encounter any critical problems that hindered task completion. However, I did come across some minor issues that, although they did not impact the application's usability, could potentially affect the overall user experience, and leave some users feeling slightly disoriented in certain situations.

To improve the interface and ensure a consistent user experience across various devices, implementing responsive design is essential. This approach allows the interface to adapt seamlessly to different screen sizes and resolutions, ensuring optimal usability regardless of the device used.

Introducing gamification elements can greatly enhance the learning experience. By incorporating features like badges, achievements, or progress tracking, users are motivated to engage with the application and track their progress, fostering a sense of accomplishment.

I am confident that by considering this evaluation and implementing necessary improvements, this project will result in an excellent high-fidelity prototype. Furthermore, it is worth noting that the AI integration with this prototype can be seamlessly achieved, enhancing its overall functionality and usability.