

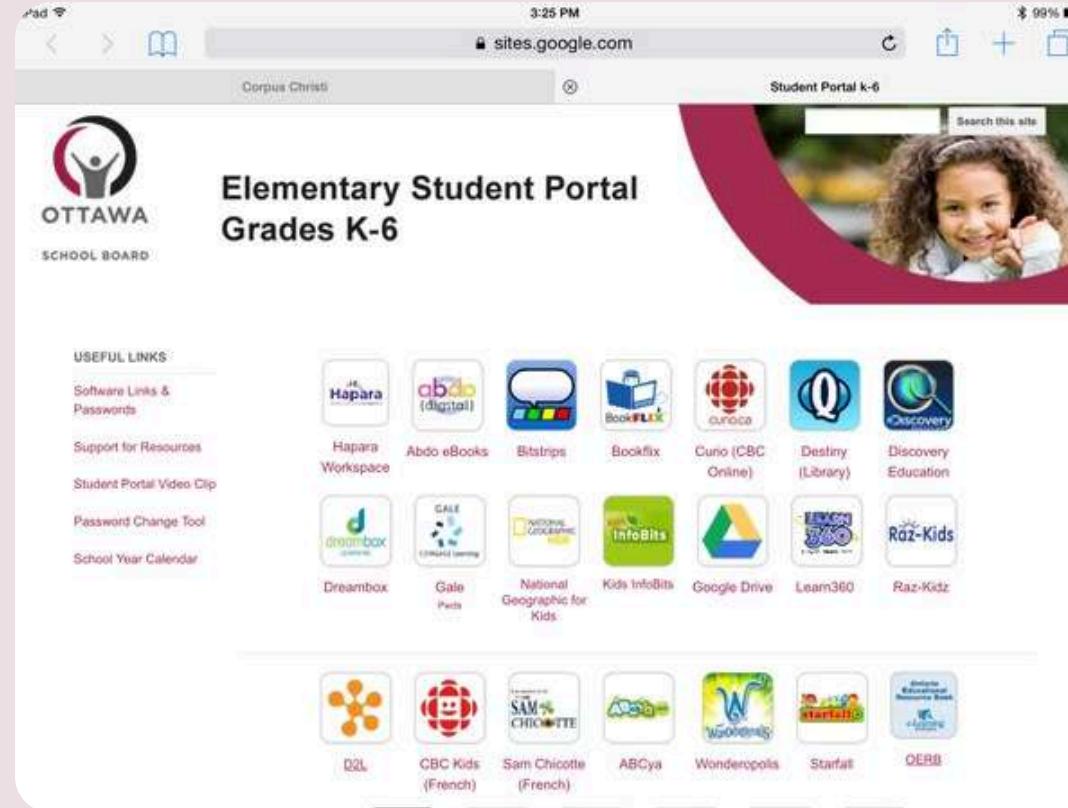
HCI Task: Redesigning the Elementary Student Portal

Applying core Human-Computer Interaction (HCI) principles to analyze and improve the User Experience (UX) of a crucial student resource.

Objective: To analyze and improve the User Experience (UX) of a website by applying core Human-Computer Interaction principles.

INITIAL ANALYSIS

The "Before" Design: Identifying Usability Gaps



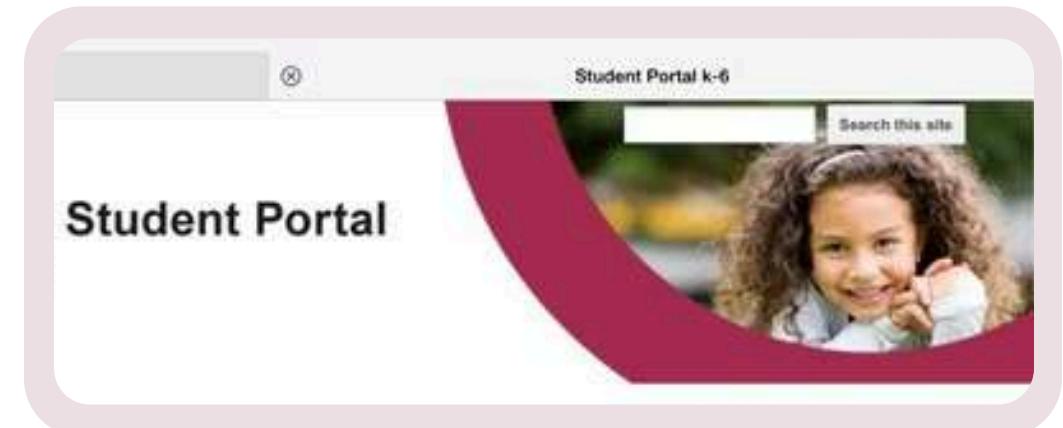
INITIAL ANALYSIS

The "Before" Design: Identifying Usability Gaps

Analysis of the original design (below) revealed several critical issues that caused lack of usability for young students.

Low Efficiency:

Key functions, like the "Search this site," are small and hidden, resulting in slow and inefficient navigation.



INITIAL ANALYSIS

The "Before" Design: Identifying Usability Gaps

Analysis of the original design (below) revealed several critical issues that caused lack of usability for young students.

Poor Visibility & Consistency:

It's hard to see what's most important ; random icon shapes and sizes confuse the user.

High Cognitive Load:

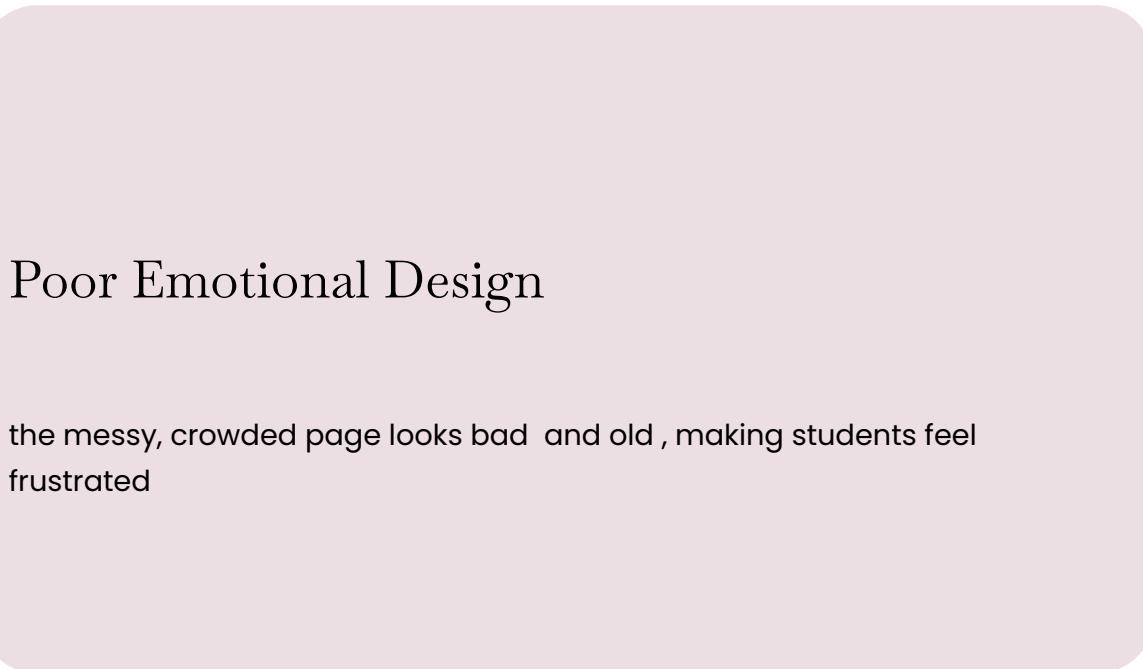
The chaotic layout forces visual scanning and processing of over 20 unique items, mentally exhausting young students.



INITIAL ANALYSIS

The "Before" Design: Identifying Usability Gaps

Analysis of the original design (below) revealed several critical issues that caused lack of usability for young students.



DESIGN SOLUTION

The "After" Design: Structure and Clarity

The screenshot displays the redesigned Elementary Student Portal for Grades K-6. At the top left is the Ottawa School Board logo. To its right, the text "Elementary Student Portal" and "Grades K-6" is displayed. A large, rounded red graphic containing a smiling young girl's face is positioned on the right side of the header. Below the header is a search bar with the placeholder "search for apps or websites". The main content area is organized into three horizontal sections: "Learning tools", "Library and reading", and "Help and Support". Each section contains five items, each with a small icon and a descriptive label. A dark red footer bar at the bottom contains the copyright notice "© 2025 Ottawa School Board. All Rights Reserved."

- Learning tools**
 - Hāpara (Hapara Workspace)
 - Google Drive
 - D2L
 - Dreambox
 - Wonderopolis
- Library and reading**
 - Bookflix
 - Destiny (Library)
 - Raz-Kids
 - Abdo Digital BOOKSHELF (ONLINE DIGITAL LIBRARY)
 - NATIONAL GEOGRAPHIC
- Help and Support**
 - Password Change Tool
 - Support for Resources
 - Software Links
 - School Year Calendar

DESIGN SOLUTION

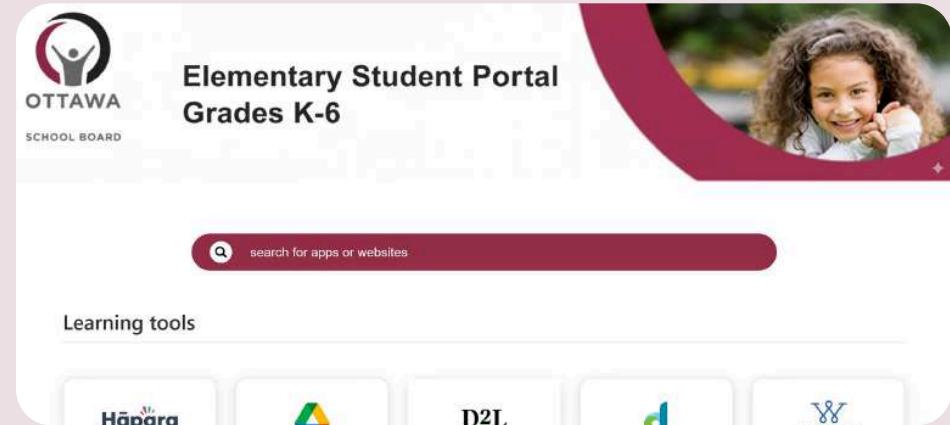
The "After" Design: Structure and Clarity

The redesign transformed the chaotic page into a clean, modern, and structured interface centered around user needs.

Search bar:

The large, centered search bar makes it fast and easy to find specific tools and content.

The "After" Design: Organized for Clarity



DESIGN SOLUTION

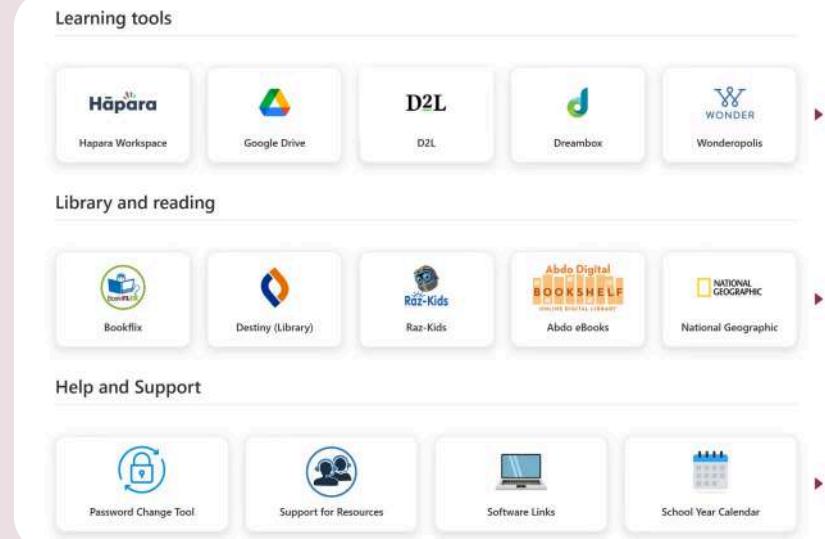
The "After" Design: Structure and Clarity

The redesign transformed the chaotic page into a clean, modern, and structured interface centered around user needs.

Card design

- A uniform "card" design is used for all links, ensuring visual consistency across the board.
- Content is organized into logical, user-centered categories for quick browsing.

The "After" Design: Organized for Clarity



DESIGN SOLUTION

The "After" Design: Structure and Clarity

The redesign transformed the chaotic page into a clean, modern, and structured interface centered around user needs.

High Efficiency

(replacing the useful links section)

- Content is organized into logical, user-centered categories for quick browsing.

Spacing

- Strategic use of whitespace and clear typography improves readability and reduces visual noise.

The "After" Design: Organized for Clarity

Help and Support



Password Change Tool



Support for Resources



Software Links



School Year Calendar

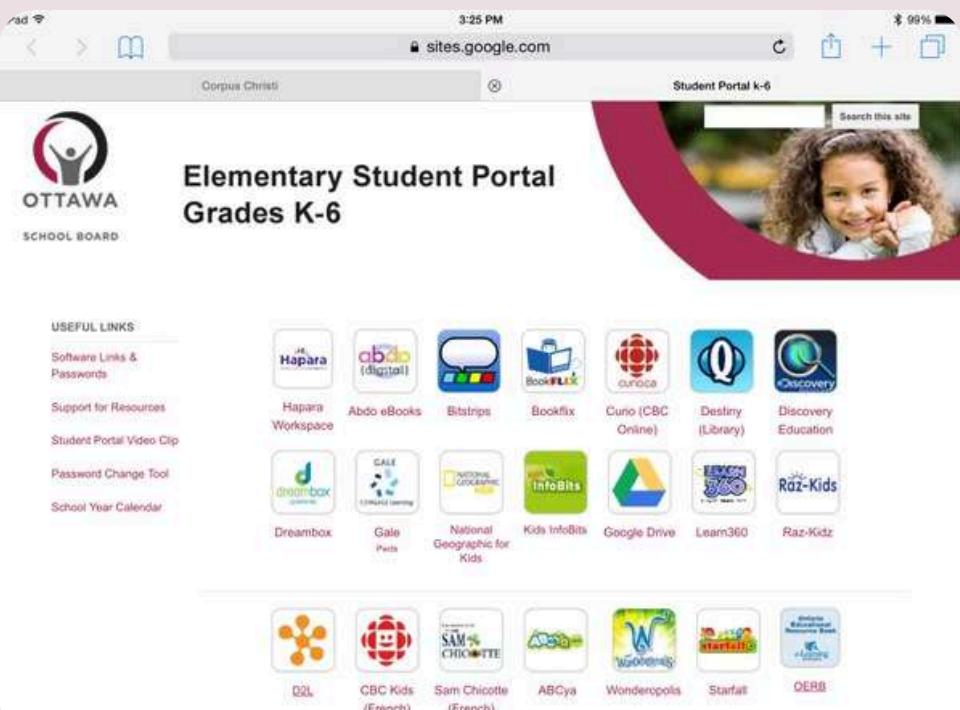
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Visualizing the Transformation

A side-by-side comparison highlights the improvement in organization, clarity, and overall visual style.

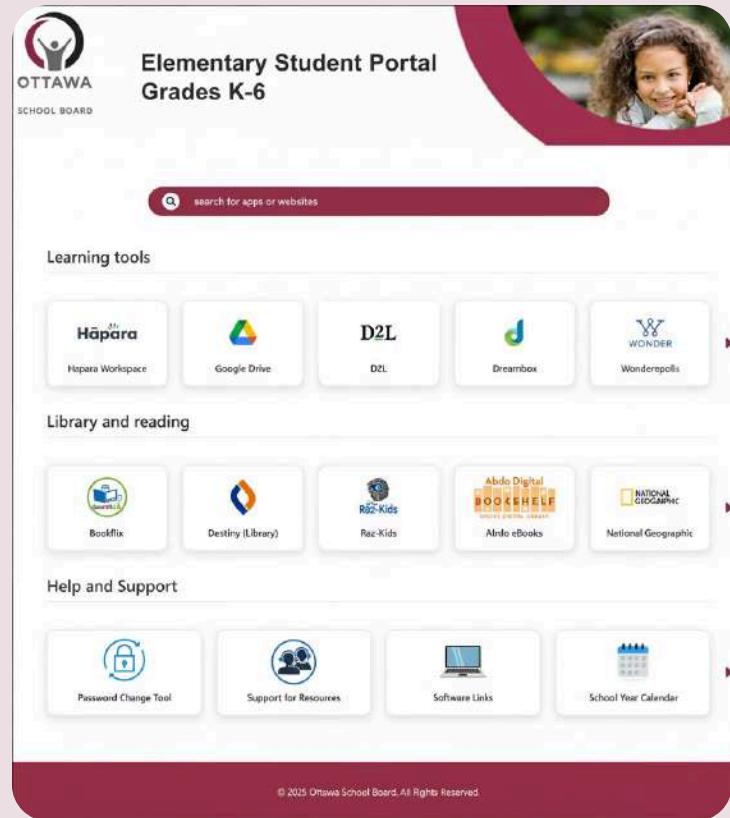
Before: Chaotic and Inconsistent

Over 20 icons with no visual grouping or clear hierarchy.



After: Organized and Intuitive

Categorized content, uniform cards, and a clear path to key features.



SUMMARY OF IMPACT

A More Usable and Effective Portal

The redesign successfully transformed the student portal from a frustrating, inefficient page into one that meets core usability goals:

Effective

Users can successfully find and launch the tools they need to complete their educational tasks.

Easy to Learn

The consistent structure, uniform elements, and logical flow make the portal predictable for new and returning students.

Efficient

Users can find tools **quickly**, utilizing either the centralized search or the newly organized categories.

Key Takeaways: HCI Principles in Practice

By focusing on fundamental design principles, we achieved a significant improvement in the student experience.

Consistency

Uniform card design and repeatable interaction patterns.

Visibility

placing the most powerful feature: the search bar.

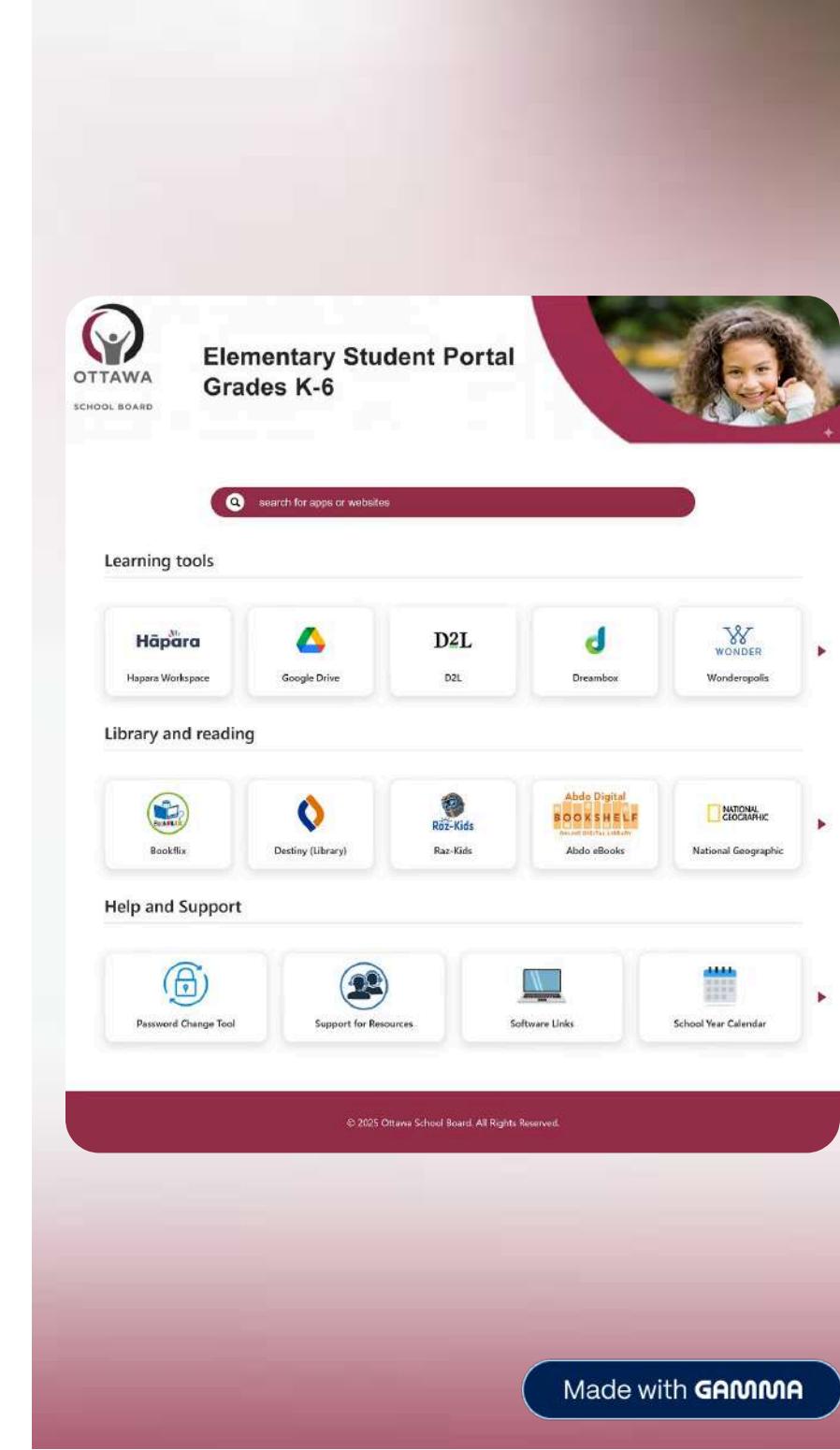
Affordance

Designing elements that clearly look and behave like buttons or links.

Categorization

Applying User-Centered Design to create logical information architecture.

The result is a significantly better and more usable digital experience for every elementary school student.



Extending the design: Better Support for Everyone

Making it easy to get help on any device.

We expanded the design to include critical support issues, ensuring students can get help quickly whether they are on a laptop or a tablet.

FAQ design (According)

A side-by-side comparison highlights the organization, clarity, and overall visual style for the frequently asked questions (faq) .

Frequently Asked Questions

Common questions from students and parents

How do I reset my password?

You can use the "Password Change Tool" icon on the main dashboard. If that doesn't work, please contact your homeroom teacher.

How do I access Google Classroom?

Please bring your Chromebook to the school library/tech center for a check-up. We might need to swap it for a temporary one.

My Chromebook isn't working, what do I do?

Please bring your Chromebook to the school library/tech center for a check-up. We might need to swap it for a temporary one.

Can I access these tools from home?

Do I need a separate password for Raz-Kids?

Where can parents view grades?

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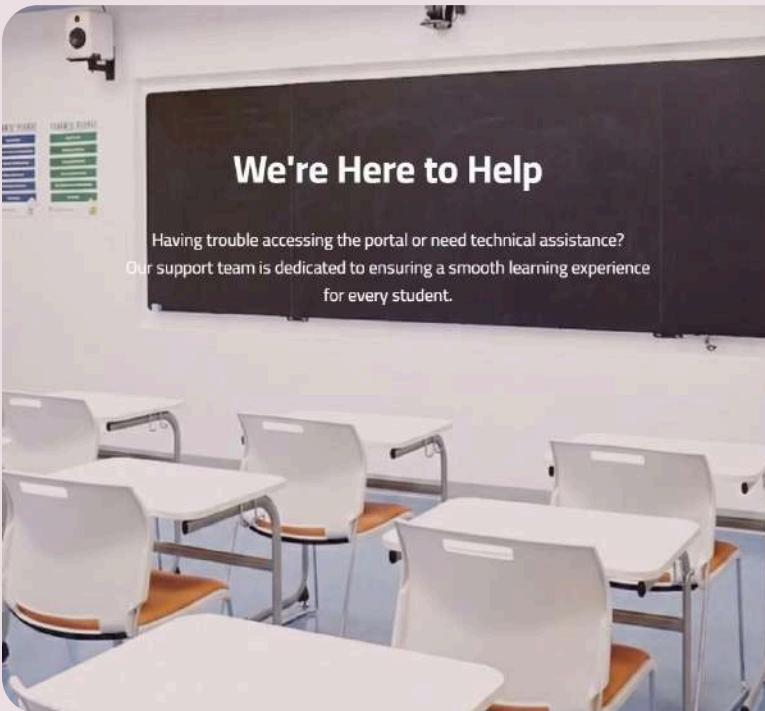
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Contact Support: Visibility & Feedback

HCI Principles: Feedback, Visibility of System Status.

if the students or the parents did not get the information they needed they can contact support



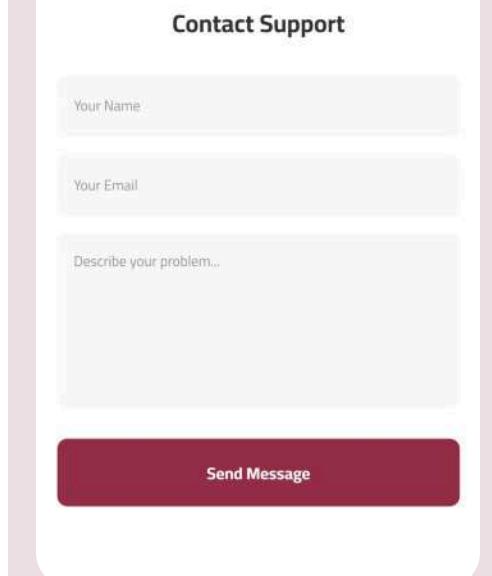
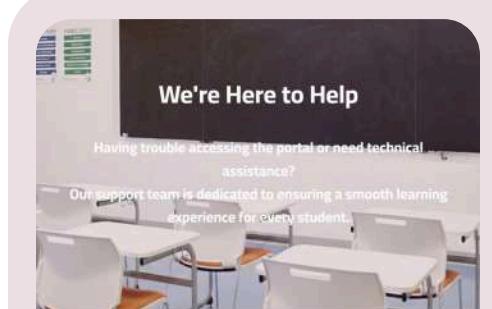
Contact Support

ahmed

exambel@gmail.com

i have a problem with my password

Send Message



Live Chat: Desktop View

Side-by-Side View

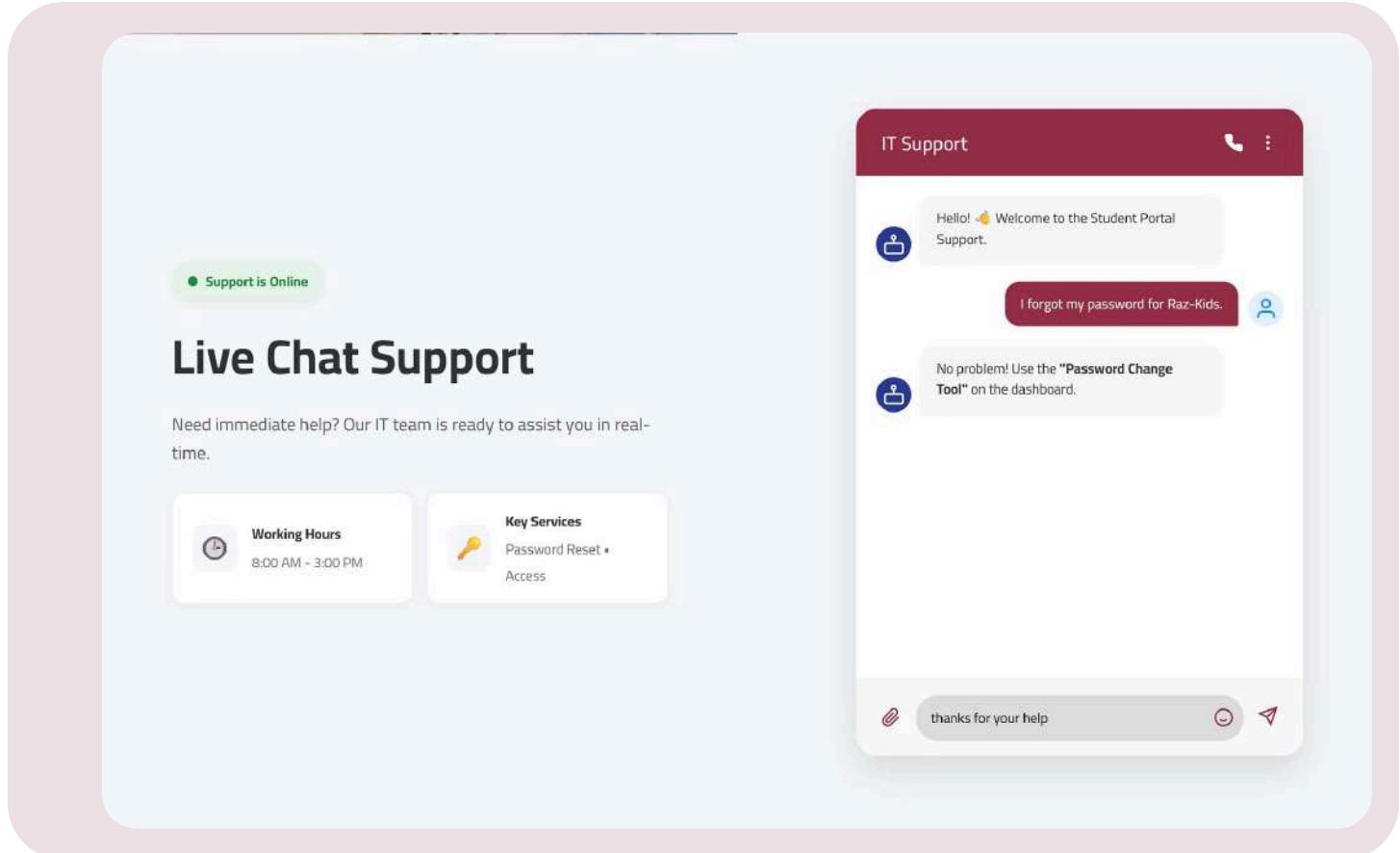
- On large screens, we show the chat and the help information next to each other.

Status Indicator

- A green "Online" light shows students that support is ready to help instantly.

Familiar Design:

- The chat looks like popular apps (like WhatsApp), so students already know how to use it.



Live Chat: Mobile Flow

Smart Layout:

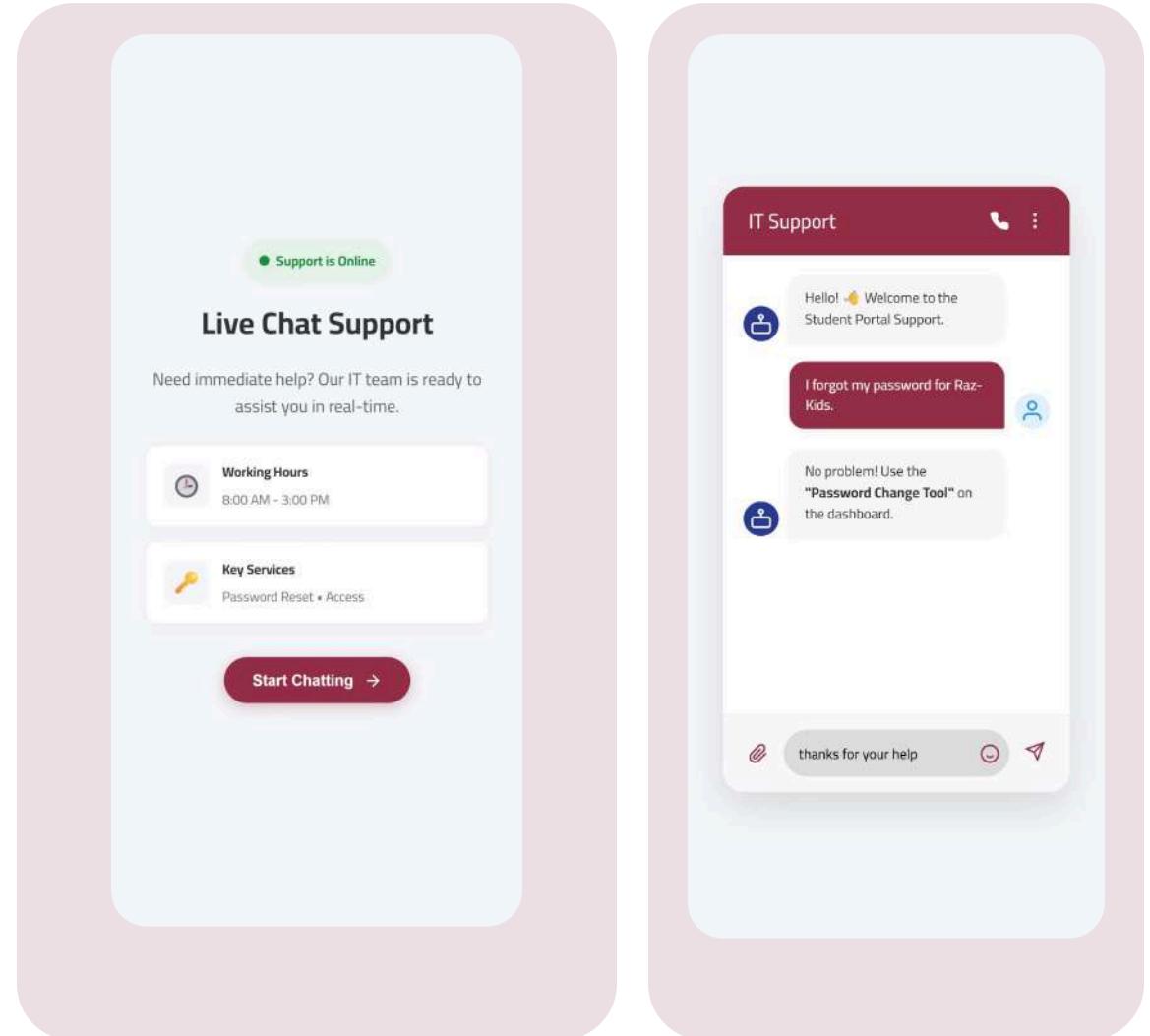
- On mobile, we separated the "Info" from the "Chat" to avoid crowding the small screen.

Step-by-Step:

- First, the student sees the working hours and a "Start" button.
- Then, the screen smoothly scrolls down to the chat area.

Better Experience:

- This makes the mobile experience feel like a real app, not just a squeezed website



SUMMARY OF NEW FEATURES

A Complete Support System

We extended the simple and clean design to all support pages.

FAQ

Organized:

We used expandable lists to keep the page short and tidy. Students can find answers quickly without getting lost.

Contact Support

Simple:

We removed all distractions. The form has large, clear inputs that are easy to use on touch screens

Live Chat

Smart Layout:

The design changes based on the device. On desktop, it shows everything at once. On mobile, it splits into two steps to fit the small screen perfectly.

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