SWEN303 - User Interface Design

Assignment One – Usability

Andrew Mark Garrett

300352955

Process & Techniques

♦ **Background Summary**: This report critically analyses the usability of the ***Black Board website***. The test was conducted on an individual basis on both the VUW ECS computers and on my personal home computer. This critical usability analysis shed light on usability problems such as inconsistent layouts, poor navigation, lack of/nonexistent error prevention/detection, feature overload and more that will be discussed throughout this report.

♦ **Methodology**: For evaluating the usability of the Black Board website, I used both heuristic evaluation and cognitive walkthrough. Enacting the heuristic evaluation was straight forward. I established an appropriate list of heuristics such as Notifications, Language, Control, Consistency, Shortcuts, Minimalism Recovery, and Help. Then I recorded the problems for each heuristic. Using cognitive walkthrough however was a little more difficult, as not only did I have to create a whole persona but also pretend to be them to carry out the walkthrough. I chose two personas for the walkthrough who were both students. One being the older more mature student, and the other being a young first year student. Using cognitive walkthrough allowed me to categorize the clients of blackboard into two groups and identify the most common problems specific to those personas, which in turn, shed light the problems with the highest priority. Using heuristic evaluation simply allowed me to choose heuristics that were best suited for "Black Board". **Below are examples of the two personas used in the cognitive walkthrough.**

Cognitive Walkthrough
Persona 1

Name: First Year Frank
Age :17
Occupation: First year at Victoria University of Wellington studying Computer Science and Mathematics.
Background knowledge and skills: Frank is a social media savvy, and a regular user of his Mac book pro, he has low patience, and expects his information immediately. If he cannot find their information immediately, then he will give up just as quickly.

Persona 2

Name: Mature Mandy
Age: 40
Occupation: Retired mechanic starting her first year at Victoria University of Wellington.
Background knowledge and skills: Has just started a University education after having worked 30 years as a mechanic. Mandy Has kids of her own and a Husband. She makes the time to learn new technologies, but things need to be kept simple and not over complicated for Mandy to be comfortable with the technology. She likes order and consistency but can get frustrated quickly if things don't go her way.

♦ **Efficiency and comparison between Cognitive Walkthrough and Heuristic Evaluation:** Both Cognitive Walkthrough and Heuristic Evaluation were efficient and effective evaluation process's which both shed light on different problems, for example, using personas that best described two types of students shed light on problems such as poor navigation and unintuitive icons, while Heuristic evaluation shed light on inconsistent layouts, poor error prevention, feature overload and more.

1. Finding a "Grade" is complicating.
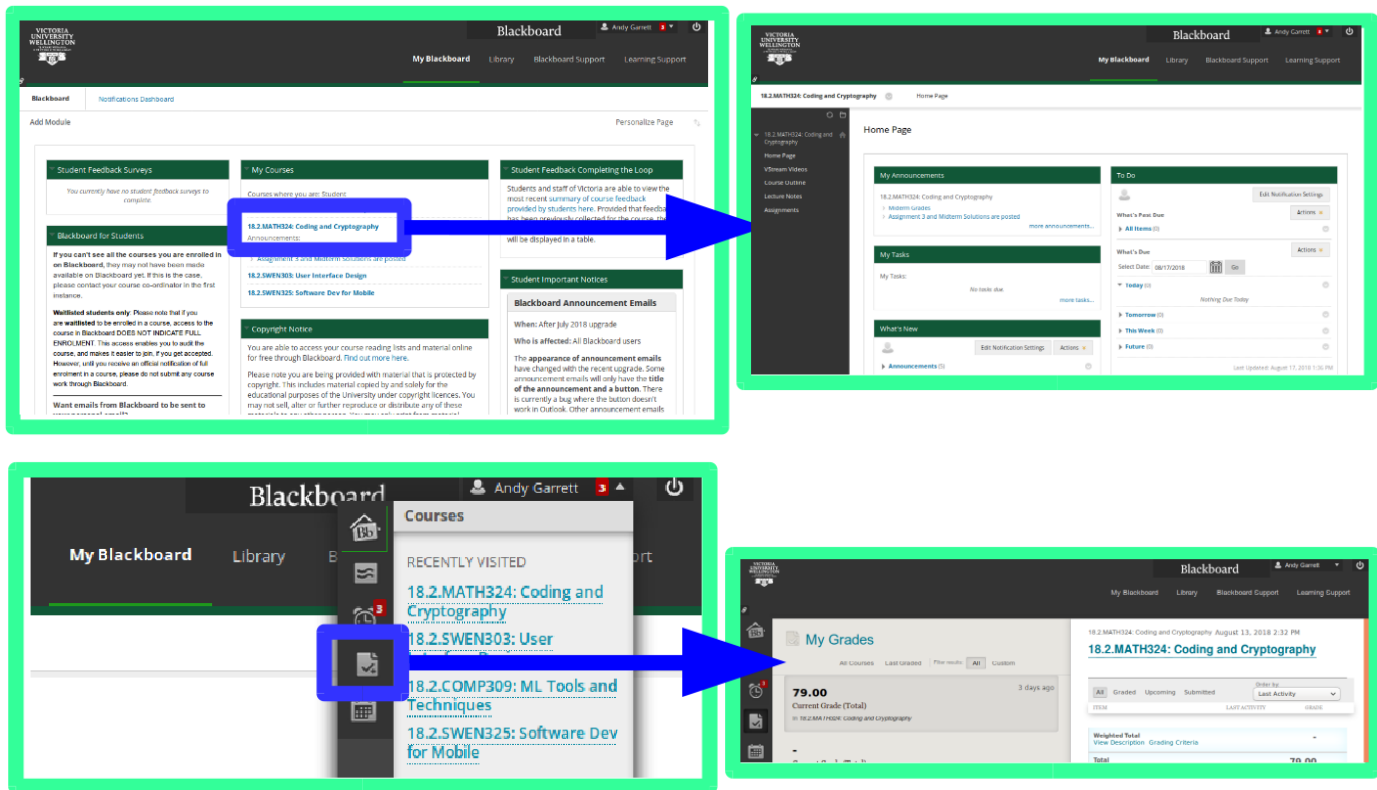
Problem

Grades are independent to the course page itself and are not included within any of the course homepages.

Why this is a Problem

A student would have no idea where his grades are located if they cannot find them within the course pages. Clicking course link within the "My Courses" module on the home page takes you to the course home page which displays the course outline/ vStream videos, announcements but nothing to do with grades. Instead the student must use the drop-down navigation bar where they can click on the grades icon to be directed to a grades page independent of the course homepages.

Solution

1) Include a link to the grades within the course pages

2) or rid of the grades page, then include all grades for a given course within the course home page in blackboard.

2. Overwhelming homepage
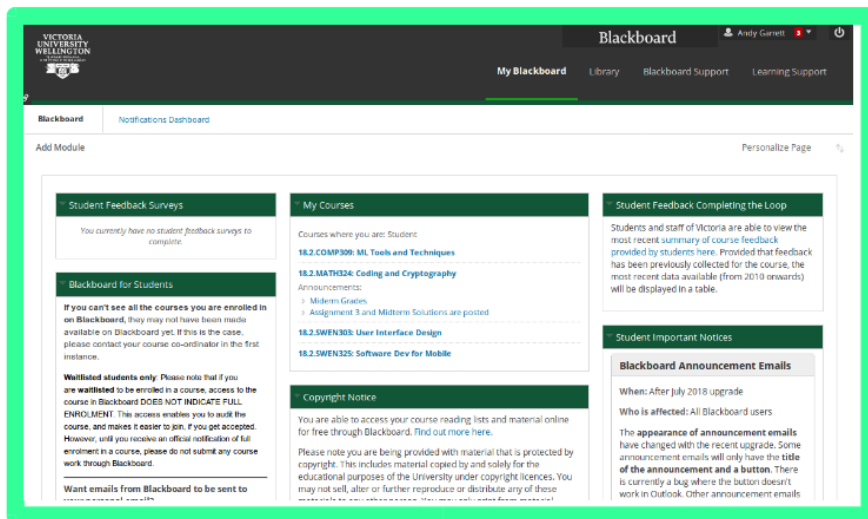
Problem

Too many features within the blackboard homepage. Most of the modules displayed are pointless or redundant.
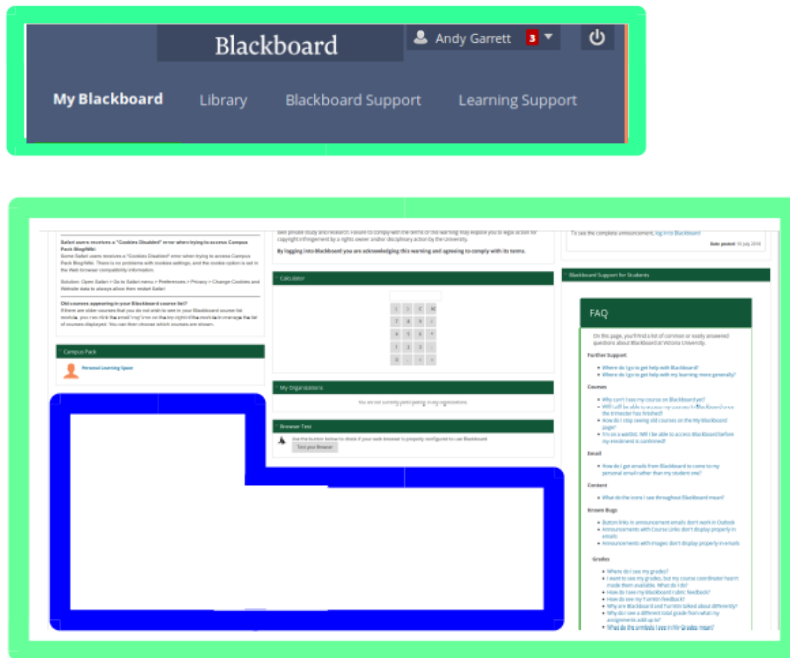
Why is this a problem

Users won't spend a lot of time on a website if it requires significant cognitive effort from them, and even less time if this is their first visit. Having a confusing crowded and overwhelming homepage like blackboards homepage above will require the user to decipher the interface rather than drawing their attention to the content. Given that a homepage is the first thing a user sees, then it should be clear and consistent with an understandable layout to keep the users attention on what really matters.

Solution

1) To cut down or clean up overwhelming and/or pointless modules within the home page a visual hierarchy could be used when designing the home page to prioritize information by using aesthetics to the inform the user the level of importance of the content on the home page. These visual hierarchies can help naturally guide a user's eyes around the page, and thus, minimizing overwhelming effect of the home page.

2) Collapse all modules when the user signs in.. Eg

4

3. Inconsistent sizing and spacing

Problem

There is inconsistent spacing and sizing between the drop down navbar, logout button, blackboard home link, and modules within the black board home page.

Why is this a problem

Users are more tolerant of minor usability issues when they find an interface visually appealing. This aesthetic-usability effect can mask user interface issues and can prevent other issues being discovered during usability testing. Black board lacks aesthetics especially with inconsistent spacing between items/icons.

Solution

Design the spacing and sizes of and between icons/modules to be more consistent.

5

4. Two Home Pages
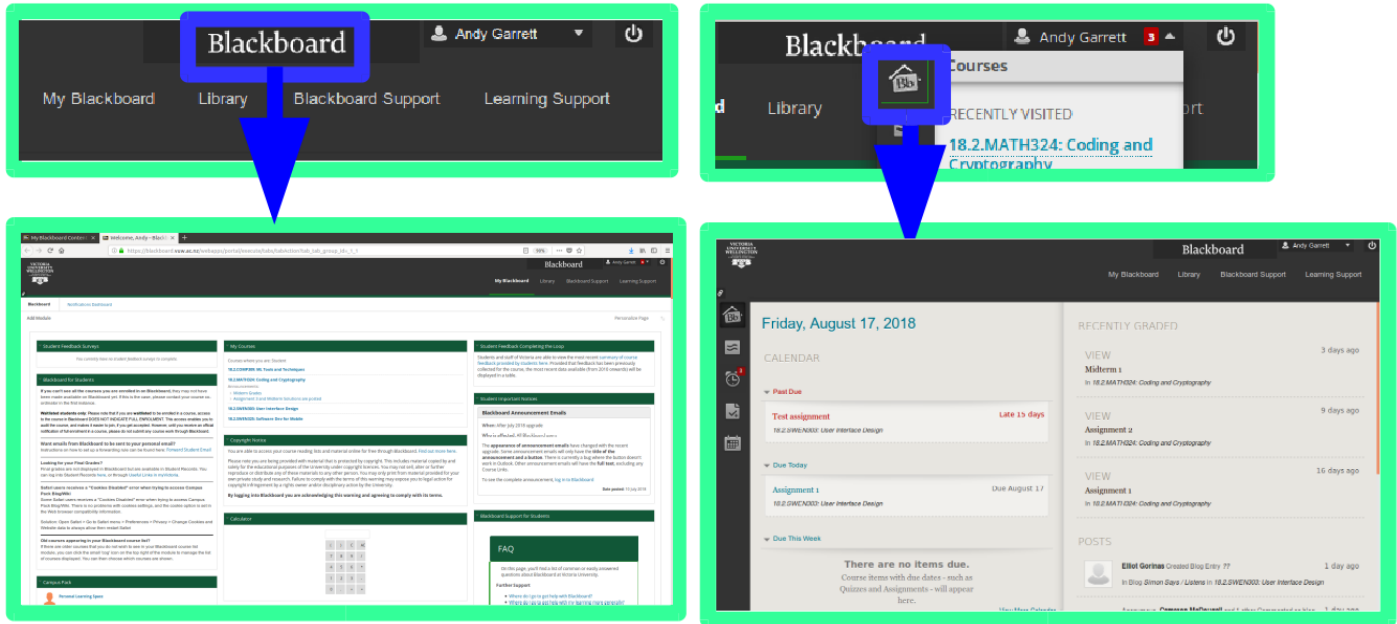
Problem

The blackboard title opens a new tab containing the first page you see on log in, which to all students is known as the "homepage", however, in the drop down nav bar there is another home icon that redirects you to another "homepage" that is almost hidden away from the user completely.
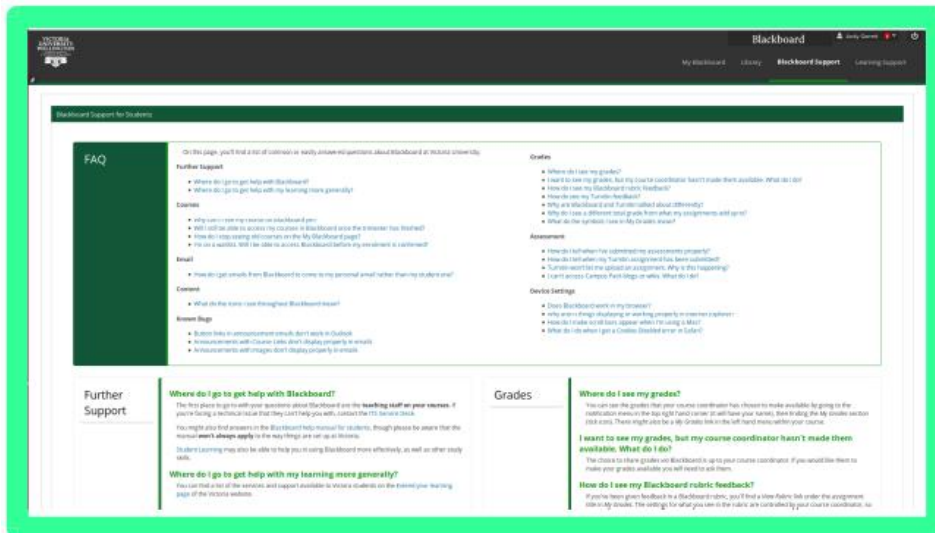
Why is this a problem

This is very misleading and can easily leave the user confused. Not only is it pointless opening a new tab containing the blackboard "homepage" but entirely inconsistent with what the homepage should actually be. According to tech target the "Homepage" is, or should, be the first page the user sees. The fact that blackboard has two homepages is again overwhelming and confusing.

Solution

1) Get rid of the homepage from the drop-down navigation bar.

2) Let the homepage from the drop-down navigation be the first page the user sees after log in. And delete the modules homepage.

With both the above solutions also change the blackboard title and the home icon to redirect to the same page.

5. Too much information on the help page.

Problem

The help section is overwhelming with too much information being displayed all at once
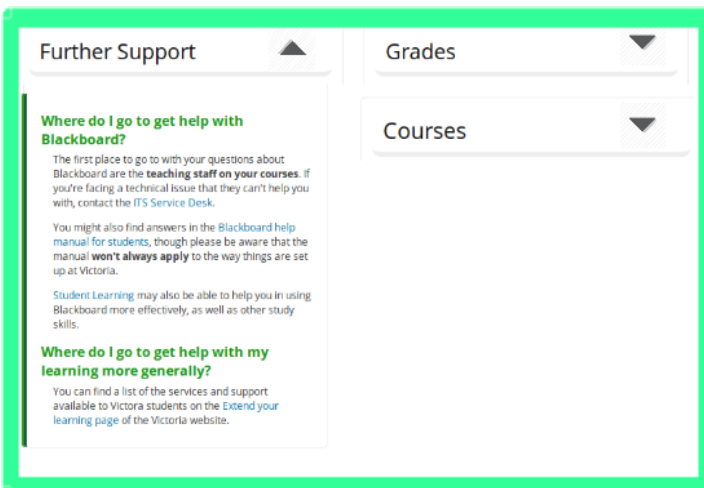
Why is this a problem

Information overload describes the excess of information available to a person aiming to decide or complete a task. This impedes the decision-making process, resulting in a poor decision being made.

If the user has turned to the help section to try get help with a problem using blackboard then it may very well be the last straw for the user before they give up. Showing this much information to the user all at once is once again overwhelming and complicated.

Solution

Use collapsible modules for each help section, thus compressing all information and allowing the user to choose what section of help they want to further read.


7

6. On Log Out
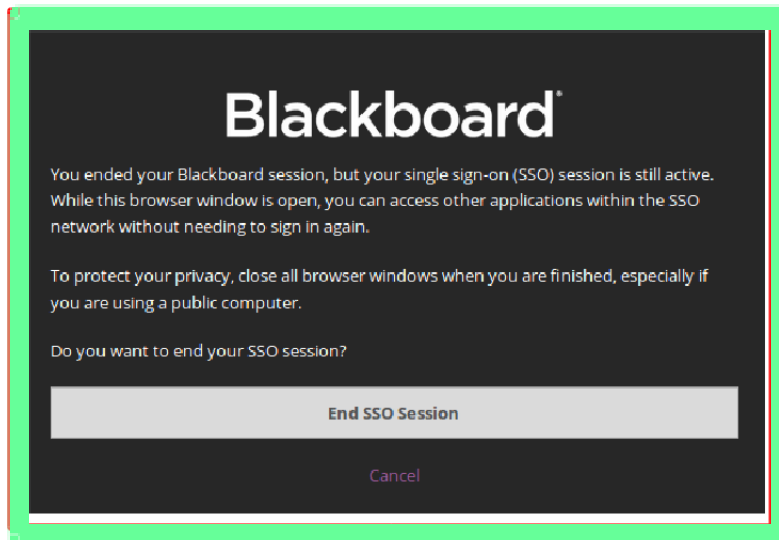
Problem

Black board does not ask if the user is sure they want to log out, instead they log the user out of blackboard but keep there SSO session running.
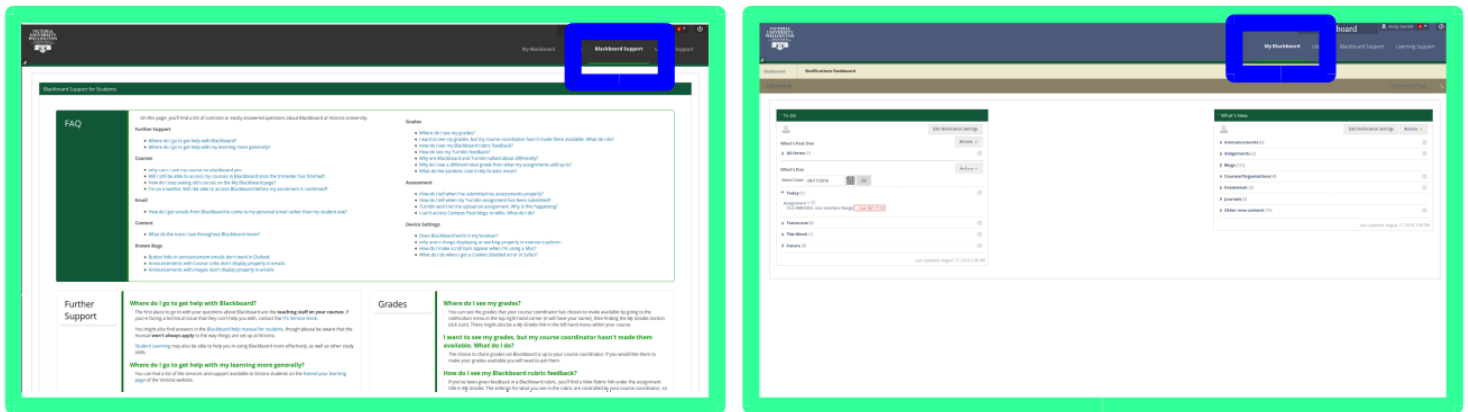
Why is this a problem

Slips can occur when a user is on autopilot and takes the wrong actions while trying to complete a reasonable goal This can happen with a user that goes to log out when they didn't mean to, an in every case is fronted with an error prevention message asking the user if they are sure they want to log out. However, blackboard does not ask this and logs the user out immediately before showing a message detailing information on the SSO session.

Solution

Simply ask the user is they are sure they want to log out... eg
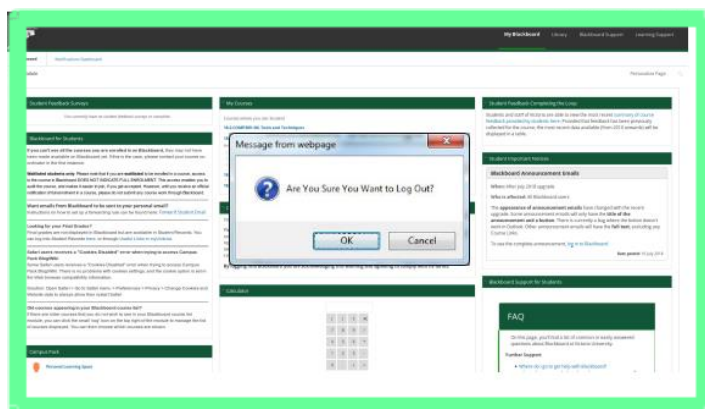
7. Custom theme only displays on the one tab

Problem

Choosing a custom theme will only change the theme for that page, navigating to a different page will still show the default theme.

Why is this a problem

When choosing a theme, the user would expect to see this theme displayed throughout all tabs on their blackboard. However, this is not the case. The selected theme will only show for that one page and all remaining pages stay at default. If the user wants all pages within their blackboard to have the same theme, they will have to change each page one at a time. However, black board only allows the user to change certain tabs and not all.

Solution

1) Let the chosen theme change all pages across blackboard (universal theme)

2) keep the current page personalization's but allow for user to also select a universal theme.

8. Confusion when selecting a theme.

Problem

Selecting a theme when trying to personalize your blackboard will rearrange the list of themes, remove the selected theme from the list at the same time and place the chosen theme above.

Why is this a problem

Rearranging the order of themes in front of the user's eyes can leave the user confused, they also can no longer see the theme they have selected in their themes list. This is inconsistent and confusing at the same time.

Solution

1) Highlight the selected theme without removing or rearranging the list of themes

2) keep the selected theme within the list of themes but still display it above.

9. Small/invisible quick link icon.
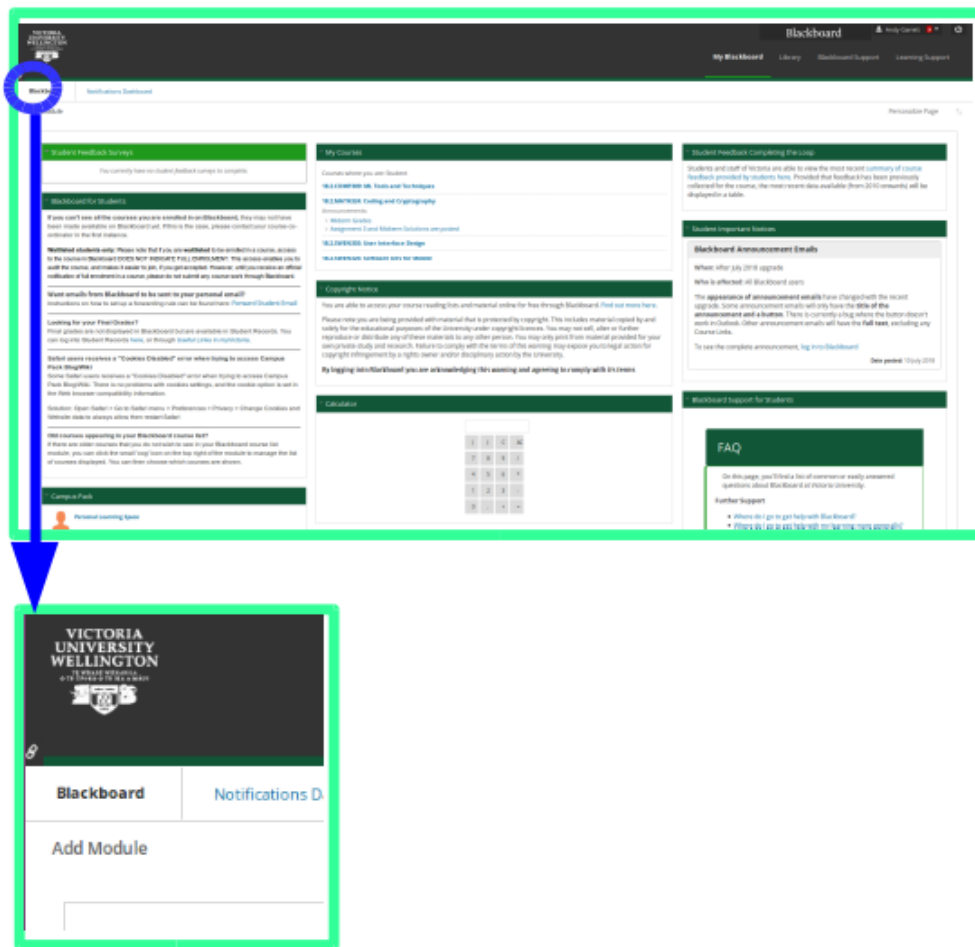
Problem

Small almost Invisible quick links icon is located at the top left-hand corner of blackboard. The icon is not intuitive and does not clearly show the user what it is meant for. It does not look like it has any functionality when in fact clicking it will display a pop up of quick links/shortcuts.

Why is this a problem

Quick-links are supposed to be both easy for the user to find and easy to use, however the above quick-link icon is all but that. It does not clearly stand out to the user or show the user that it has functionality.

Solution

Enlarge the quick-links icon and replace it with a more detailed icon in a way that shows the user that something will happen if they click it.