INTRODUCTION

Following a comprehensive usability evaluation of the existing Unisa web site, a prototype of an improved system was developed by UNISA’s Corporate Communications. This report provides the result of an evaluation of this prototype using eye tracking and observation in the HCI lab at UNISA.

RESULTS FOR NORMAL USERS

Some of the problems described below also surfaced when blind participants were using the system, so the results in this section are not only based on data from users without disabilities.

The Home page

Problems

1. No severe problems on this page. Users understood the STUDY and ABOUT links, although half of the users used the horizontal menu at the top to activate these links.
2. The only aspect that needs attention is the placement, colouring and text (content and font) of the section with the link to myUnisa. Only one of the 4 normal users noticed and used that link successfully when asked to go to myUnisa from this page. Different users had different reasons for missing this:

- The more important things appear on the left half of the screen and one user assumed that the myUnisa block forms part of the ‘general information’ type content that appears on the right hand part of the screen.
- One user thought the login space was a general login for the whole web site and did not connect it to myUnisa specifically. She did not read the text there at all.
- One user thought it was part of the banner and just ignored it.

Possible solutions (need further testing to find the best one):

- Move the myUnisa login form to the “interactive area” at the bottom left (next to the Facebook etc icons).
- Change the wording to: myUnisa Login (with myUnisa in a large and clear font).
- Add a myUnisa item to the horizontal menu at the top – many users (in general web site interaction) ignore all other parts of a web site and just scan the links in the top and left-hand menus. This was confirmed by this study – a number of participants used the About and Study links in the menu and not the prominent ones in the centre.

The Study at Unisa page

![Study at Unisa page](image)

Problem 1
All 4 sighted participants displayed confusion between “Choose and apply” and “Register”. All 4 missed the text saying “First time users at Unisa” and “Students with a student number”. One student specifically asked what “Apply” means and another asked what the difference between Apply and Register is. Three clicked on the wrong link of the two at the first attempt.

**Possible solutions**

**Alternative 1**
- Place the text “First time students” and “Students with a student number” just below the heading in the red and blue boxes respectively. Increase the font.
- Increase the font of the dates as well.

**Alternative 2**
- When a student has clicked on Register, display a Message box asking “Do you have a student number?” YES/NO. If they click on NO display a message that they have to APPLY first and go back to the Study Screen.

**Alternative 3**
- Change the wording on the Red and Blue boxes to “Prospective students” and “Registered students” respectively (this can then be tested to see if users understand it better).

**Other suggestions**
- If users click on Apply or Register, check the system date and display a message if they are trying to apply/register outside the application/registration period.

**Problem 2**

Users do not understand the difference between Career and Qualification.

**Possible solution**

A subtle change to the wording may solve the problem. Instead of “Choose a career”, say “Career guidance” (this also reflects more accurately what they will get to from this link).

**Problem 3**

After being advised that they should apply before registering, users did not notice the “Apply” link at the bottom of the Apply block. In general, there are too many things to click on in each of these blocks. This contributes to the fact that they do not read the hint about being a first time student and having a student number.

**Possible solutions**
- Increase the contrast between the text and the background on these the links. These links are the most important on this screen and they have exactly the same colour intensity as the links on all the other menus. Making them even slightly darker will draw attention to them.
- Making the “Apply” caption red and the “Register online” caption blue may also help to put emphasis on these important links.
- One user suggested adding the words Step 1, Step 2 and Step 3 before the captions of the buttons below Choose and Apply. (This will need to be tested with more users before it can be accepted as a solution. Doing this may hamper users who do not need steps 1 and 2).

Problem 4

Unnecessarily many links (menus) on this page.

Possible solution

Move the menu under “Other study information” (currently on the right hand side) to the menu on the left hand side. Remove the links to myRegistration, myChoice, etc. These can appear after students click on “Brochures”. This appearance should preferably be in a new window with a short explanation of the content of each brochure.

Problem 5

The text under “Masters and Doctoral Studies” is not appropriate. Using a “Click here” link is not acceptable.

Possible solution

Depending on what this leads to, one or more links that have the same format as the links under “Choose and Apply” and “Register” should appear in this space. For example:

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MASTERS & DOCTORAL
Apply for studies >
Re-register >
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Or

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MASTERS & DOCTORAL
Admission requirements >
Unisa School of Graduate Studies >
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Problem 6

The Click here image on the banner will be missed by most users because it is part of the banner. Few users take note of the details on a banner as they immediately assume that it is there for aesthetic reasons.
Possible solution

If it is really important to get users to go there this link should appear on one of the menus rather than on the banner.

Interesting observation:

Two participants clicked the Research link at unexpected times. Probing them for reasons led to the insight, that there are students who have no idea that Research refers to a core business of the university and they clicked on Research to “do Research” in order to find the information they were looking for. I.e. they interpreted the link as a verb.

The About page

When asked to find the closest regional centre to, for example, Bochum most users understood that they had to use the About link (with the exception of two users who clicked on the Research button to look for the regional offices).

Problem 1

Once they were on the About screen all 7 participants (normal and disabled) struggled to find the correct link for the regional offices. Eye tracking shows that they did not consider the “Where are we” graphic as a possibility. The reason for this problem is that the photos in the centre, together with their headings are not regarded as clickable objects or links to other information. Users fixate on the areas around the pictures when looking for the link to click on.

Possible solutions
- Make the headings of the pictures appear clickable (i.e. place them on buttons).
- Change the words “Where are we” to “Campuses and regional offices”.
- “Who and what are we” also doesn’t give a clear indication of the kind of information that can be accessed there.
- Also consider “Management structure” instead of “Trusted leadership”. These headings will work well in a printed brochure, but if it is intended as a link on a web site it should be to the point. Hidden messages such as that contained in phrases like “Trusted leadership” may distract for the information finding goal of a web site.

**Problem 2**

More suitable icons can be found for some of the links in the menu on the right hand side. It is not clear why this specific menu includes icons while none of the others do.

**Possible solution**

We can make specific suggestions if required.

**Problem 3**

Make sure all the links at the bottom, below the black bar, are really necessary. There is already a Research link at the top and there is a link to Management in the middle section. There are four sets of menus on this screen, so the duplication must be minimised and only really useful/necessary links must be included.
The Qualifications screen (Course offerings)

Problem

This still looks like the old screen. When a participant clicks on Qualifications to get here, they expect a list of qualifications and not a list of Colleges. With the exception of 2 of the 7 participants, all indicated that they are not sure what qualifications go under what Colleges.

Solution

List the general disciplines in a language that “the man on the street” will understand (e.g. Psychology, Information Technology, Engineering) and then at the next level give the actual qualification name and code.

RESULTS FOR USERS WITH DISABILITIES

Most of these results generally apply to all pages, so we do not give them page by page.

1. All graphical elements must be tagged correctly. Currently many of the hotspots are tagged with the word “Default”. So, when using a screen reader, a blind user has to listen to numerous repetitions of the word “Default” and pick up the words that describe the correctly tagged links in between.

2. Repeated appearance of the word “Default” creates the impression that the end of the page has been reached.

3. On the home page, the Twitter, Facebook, etc icons are not visible to blind users who use a screen reader.
4. On the home page, the myUnisa link is not visible to blind users using a screen reader (again just a lot of “Defaults” when the screen reader encounters that part).
5. A form (such as that requiring users to enter a student number and password on the home page) must be designed according to accessibility standards so that the screen reader can pick up the form easily.
6. Use dummy Headings to structure the information on the page or to create “visible tags” for the screen reader.
7. Although there is no search facility the screen reader picked up a search facility with no “Go” tag.
8. Add “Skip navigation links” to skip past heading navigation and land on the first Heading.
9. Use bread crumb trails for blind users so that they know what the current path is.
10. Blind users find repetition of links (menu items) confusing.

SOME EYE TRACKING RESULTS (Normal users only)

Finding information about a possible new qualification (Social Work)

When asked to find information about a new qualification (e.g. Social Work) the student wants to register for, this participant correctly clicked on “Study” on the home page. The following shows, on the “Study at Unisa” page, how a participant never looked at the “Choose a qualification link”. She eventually clicked on “Study” in the top menu.

The following gaze plots show that this participant took more than 70 fixations before clicking on Study in the top menu.
Finding out how to re-register for the new academic year

The student correctly clicked on Study on the home page. The following gaze plot shows how, on the Study at Unisa page, she had 52 fixations before clicking on Choose a career (instead of clicking on Register Online).
After the facilitator explained that she should re-register for her current qualification and need not make any new choice, she took 55 fixations (see below) before clicking on “Registration fees and quotes” (instead of clicking on “Register Online”).

Logging in to myUnisa from the Home page
The gaze plot below shows how it took 80 fixations for this user to find the correct link.
Finding information on the regional offices

It took 75 fixations for the user below to locate the correct link.

The two users whose gaze plots are shown below did not look at the ‘Where are we’ link once during their first visit to this page.
The latter user found it at the 35th fixation on her second try (see below).