# DESIGN BRIEF

## EXECUTIVE SUMMARY

### PURPOSE

A heuristic review was undertaken of the University of Newcastle's Higher Degree by Research (HDR) application self-service portal. The portal is used by students and by agents acting on behalf of students, to apply to study for courses and programs.

The purpose of the heuristic review was to facilitate prioritisation of a user experience improvements backlog. The findings from the review were used to infer the extent that the front-end user interface met good practice conventions.

### SUMMARY OF FINDINGS

**Address writing style inconsistency**

- Apply the style guide. Inconsistencies include indirect passive language, inconsistent sentence case, and inconsistent proper noun capitalisation.

**Simplify form design**

- Redesign a single column form layout. A single column is more appropriate for complex applications because a simple vertical layout reduces the risk of omission errors
- Reduce the number of questions. This form should be optimised to fit on one page by removing unnecessary information gathering and conditionally hiding questions that are not relevant
- Reduce noise. On-screen instructions that explain how to use the interface (e.g. 'click below') are not needed for intuitive designs that use familiar patterns.

**Improve accessibility**

- Reduce the number of options. Pull-down option select elements are not an accessible pattern for a large number of options
- Change the default values. Unanswered mandatory questions should not have a valid answer as default setting, so that omission errors can be detected
- Replace temporary placeholder text with persistent helper text. Phone number format helper text should remain visible above the form field once a question is answered, so that errors can be corrected
- Fix the illegible text. Truncated content that appears off screen and overlapping elements that obscure text reduce form usability.

**Improve mobile experience**

- Redesign mobile-friendly navigation. Some page links and pagination buttons are obscured off-screen and are not usable.
- Reduce mobile header size. One quarter of the mobile screen is taken up by unused white space that reduces the space used for useful content.

### DESIGN PRINCIPLES

**Predictable**

When users know the current status, they are aware of their prior interaction outcomes and can determine what the next steps are.

- Server responses were slow and the status was not clear during a 10 second delay that did not show a action spinner. Actions that need the user to wait for a server response should show a status, like a spinner.
- Buttons display a status should be shown as 'Working'. The label 'Proceed' does not communicate status clearly.

**Familiar**

The design should speak the users' language and appear in a natural and logical order. Use words, phrases and concepts familiar to the user rather than internal jargon.

- Expand acronyms on first use (ELBP, OSOS, OSHC, CIB) with a definition
- Industry conventions like 'CRICOS' need context to make clear how the code is to be used
- Add context to acronyms in select option lists, or use simple language without acronyms

**Navigable**

Users need be able to move freely to feel confident. Allow users to remain in control of the system and avoid getting stuck and feeling frustrated.

- Numerical pagination of alphabetical lists increases effort to navigate and makes it difficult to guess which number to click on to find a specific letter
- Selecting a country takes 7 clicks and the difficulty is compounded by 4 different questions requiring country to be selected
- The website header is missing a link back to the 'home' dashboard

**Consistent**

Users should not be confused about whether different words, situations or actions mean the same thing. Follow platform and industry conventions.

- Thousands of instances of case errors. Follow the style guide to achieve consistency in use of 'Sentence case' and when to capitalise proper nouns
- Thousands of instances of inconsistent tone of voice. Use 2nd person 'Your details' not 'My details' unless the user is acting on behalf of another e.g. 'Agent's details'
- Use consistent labels for questions common across university systems e.g 'Previous names', 'Home address'

**Preventable**

Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.

- Add persistent helper text (not temporary placeholder text) to explain mandatory formats e.g. phone number country codes and date formats 'dd/mm/yyyy'
- Label all mandatory fields consistently and mark exceptions as 'Optional'
- Warn users when leaving a page that has unsaved work

**Recognisable**

Minimise the user's memory load by making elements, actions, and options visible. Information required to use the design should be retrievable and the user should not have to remember information from one part of the interface to another.

- Avoid cross-referencing other questions e.g. 'If you answered x on the previous page, then you do not need to provide this'. Instead, conditionally show content relevant for the users' situation and previous choices. Conditionals are needed for 'Medicare', 'visa', 'major', and 'employment' questions
- Add unique high-level details to the 'applications' listing for agents (e.g. 'Applicant name') to aid differentiation between listed applications

**Flexible**

Shortcuts and tailored frequent actions can speed up expert users so that the design can cater to both inexperienced and experienced users using the system in different ways.

- Detect ineligibility of applicants earlier by asking eligibility questions first, so that users do not waste effort answering questions before they are told they cannot proceed.
- Provide a link to the correct form if ineligible applicants are eligible for other applications

**Simple**

Interfaces should not contain information that is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.

- The mobile experience is poor and needs uplift. The empty header takes up too much screen space.
- Content is often off the screen edge, and sometimes cannot be used at all. Clickable 'stepper' navigation is off screen and cannot be used. CSS errors on the underline title style is illegible. Date picker is not mobile friendly
- Group instructions with the relevant control, e.g. terms and conditions text should be shown adjacent to the terms and conditions agreement check box
- Avoid two column form layouts for complex applications because errors and omissions can be easily overlooked on the right hand column
- Fix bugs that show conditional questions in teh wrong sequence for 'current', 'previous' 'preferred' names and 'title'.

**Recoverable**

Error messages should be expressed in plain language (no error codes), precisely indicate the problem, and constructively suggest a solution.

- Errors should be marked inline with an error style on the specific form inputs so that they are easy to find
- Mobile phone number errors should be shown consistently in the error style, as persistent content and not using alert dialogs that disappear.

**Clear**

It's best if the system doesn't need any additional explanation. However, it may be necessary to provide documentation to help users understand how to complete their tasks.

- Search for courses and programs shows misleading results because it is too specific. A search for 'architecture' does not find 'Bachelor of architecture' because the search function is not a keyword search and requires full name exact matches. The search should work as expected without additional instruction on how to use wildcards for common keyword matches
- Instructions on mandatory documentation need to be clearer. Instructions that state that a document 'may need to be provided' are not specific enough to avoid omission errors
- Simplify on screen instruction for first preference course selection, e.g. replace 'Please ensure that you specify the Primary Preference by specifying the Preference order to 1', with 'Select your first preference'
- Further instruction is needed to explain the sequence and process of signing up as an agency, e.g. 'Register as an agent', and 'Contact us to set up a new agency'
- Add helper text to explain email address rules for approved agency email domains.

**Accessible**

An accessible system is earlier to use for all users, including users of assistive technologies.

- Instructions should be helper text outside the input, not placeholder text inside the input, so that instructions are persistent after typing
- Helper text should be positioned adjacent to the question, after the form label and before the form input so that instruction can be understood before answering the question
- Helper text should not reference to other questions nor make visual references to locations on the page e.g. avoid 'refer to the question below'
- Option select inputs require a button and should not initiate changes to the page automatically on select
- Sign in page Javascript auto-forwarding shows an inaccessible form page for a few seconds before auto-forwarding to a second form page before the first form can be used
- Clarify which elements are clickable in the calendar date widget
- Call to action text should be meaningful e.g. 'Send feedback' not 'Click here'
- Add a label to form inputs. Exceptions are for space constrained search fields, when a title attribute can add necessary context without a visible label
- Overlay dialogs need a meaningful title. Replace thousands of instances of 'Lookup records' with meaningful titles e.g. 'Add address'
- Many instances of overlays that spawn an embedded second overlay. Embedded overlays complicate the use of scrollbars are are best restricted to small content that does not need a scroll bar on mobile
- Horizontal scrollbars obscure and prevent use of the horizontal pagination in the country selector
- Links should open up a new window when clicked from form pages to avoid losing work
- Many instances of fixed narrow width paragraphs that should be responsive to the page width
- Replace hundreds of instances of disabled elements on the summary screen with plain text, and remove the irrelevant options i.e. on teh summary screen only show how the user answered 'yes, not 'yes and 'no'

**Desirable**

The features and functions of the product and process should meet or exceed customer expectations.

- Add diverse options to name title e.g. 'Mr', 'Mrs' 'Other'
- Agency registrations are a manual backstage process that could be automated to speed up onboarding

# DESIGN REVIEW

## REVIEW FINDINGS

### KEY

Issues found will be categorised by the team most likely needed to progress the remedial action:

- Design issues are identified in blue
- Development issues are identified in red
- Content issues are identified in orange

**Flow**

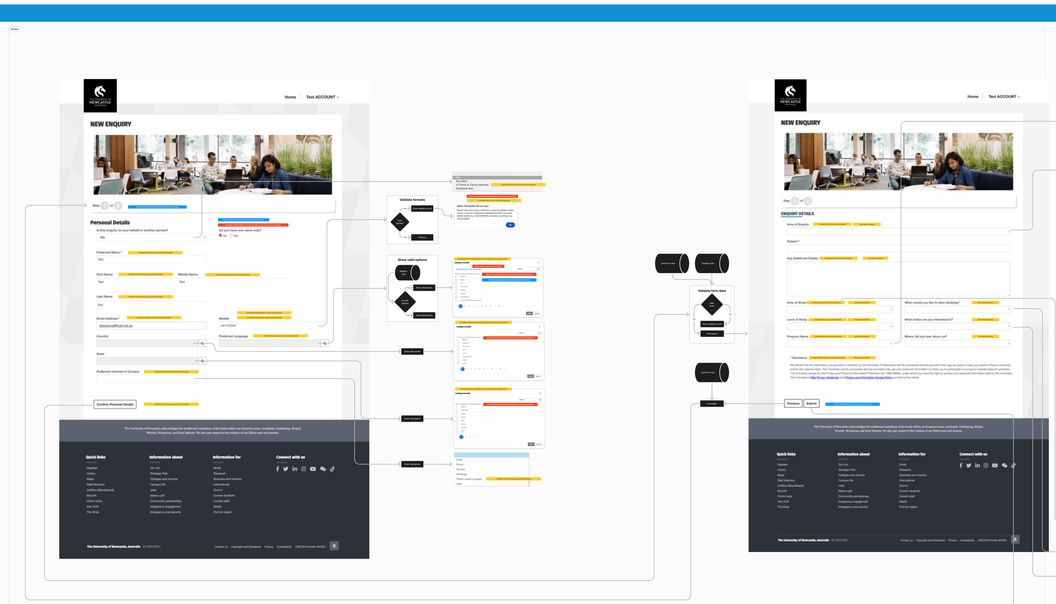
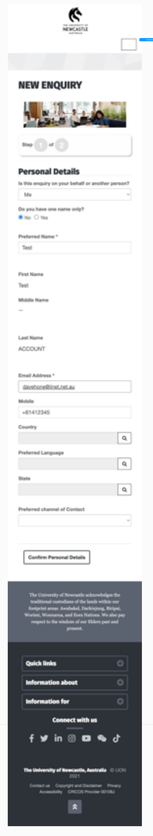
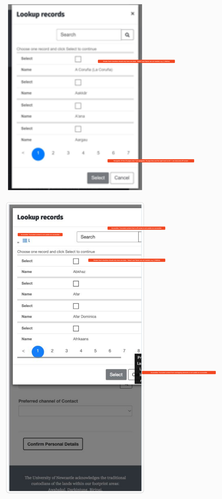
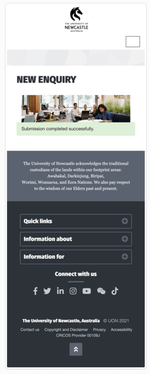
User flow is described using these symbols and labelled with a reference number

**Stakeholder engagement**

Stakeholder feedback is captured using 'Rose, thorn, bud' colour scheme

### USER STORIES

**Agent contact**
As an agent I need to contact the right person so that I can get support for my clients' issues

**Student contact**
As a student I need to contact the right person so that I can get support for my issue

**Proxy contact**
As a friend or relative I need to contact the right person so that I can get support on behalf of a student