



COMP3511/9511 Human Computer Interaction

Assignment 1

Term 2, 2024

User Interface Critique Concepts

Website:

The Salvation Army

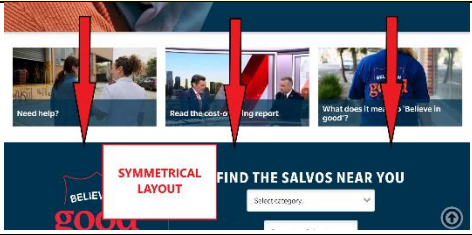
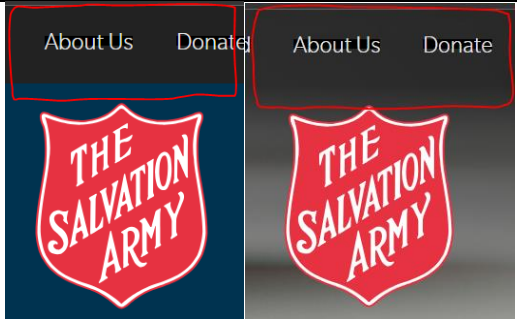
William Sheppard – z5367344

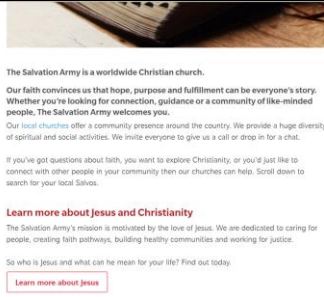
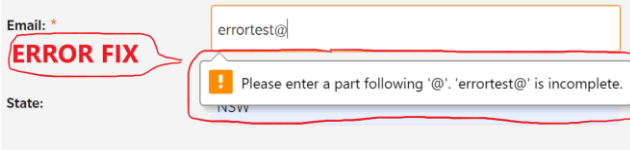
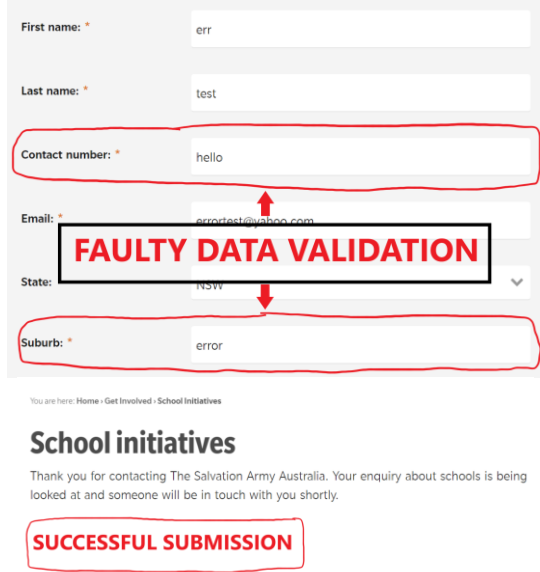
Tutorial – Wednesday 19:00, Elly Dossetor

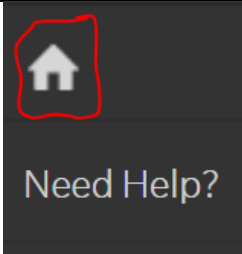
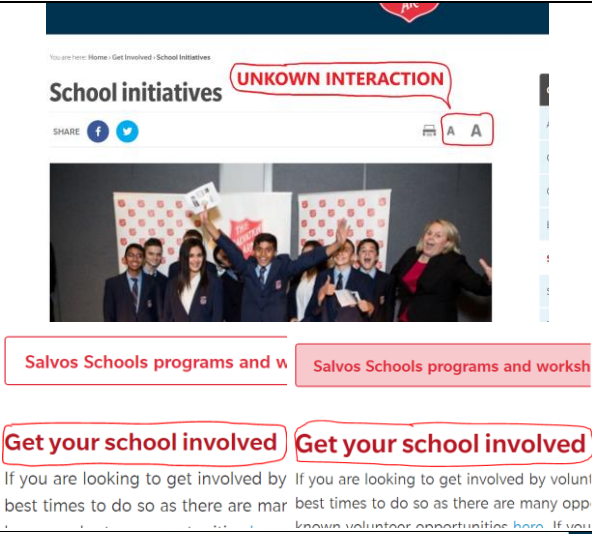
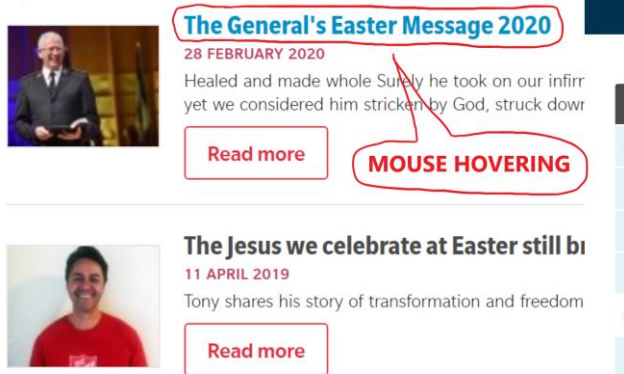
Introduction

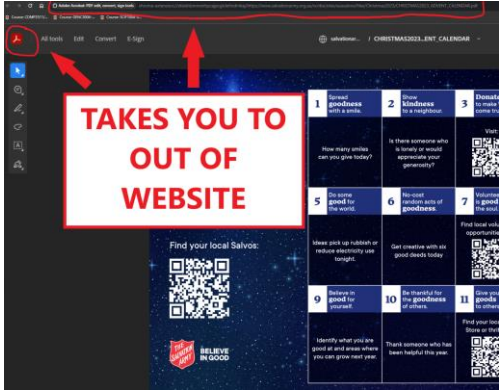

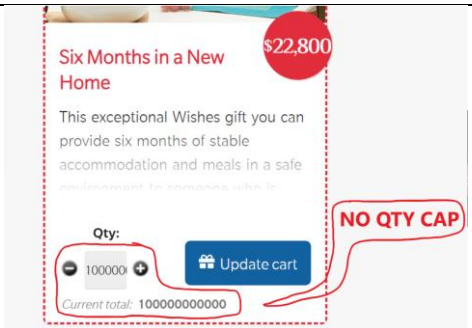
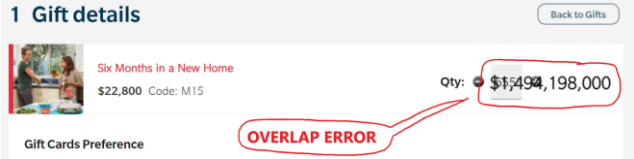
The Salvation army website is an international Christian not-for-profit organisation based in London. It is also one of the largest non-government providers of social services in the world. They provide both spiritual and social support to people in need, such as funding feeding shelters, homeless shelters, rehabilitation shelters, disaster relief shelters, refugee camps and more. It operates and funds these endeavours through private and public donations, in which donations can be facilitated through the website. The website also functions as a repository of information about the organisation's views, their history, news, community engagement, local services and other helpful information. The website serves to communicate helpful information to users and allow an avenue to provide support.

Issues Table

Reference	Severity	+/-	Principle	Description	Effects on usability goals	Effects on the user experience goals	Screenshot
1	2	Positive	Symmetrical layout (Visual Design Principle)	Website structure uses symmetrical layout. Makes going through content easier and more pleasant, as following the flow is easy.	Efficiency	Satisfying Helpful	
2	0	Negative	Consistency (Visual Design Principle)	On the home page, the top border for the main website hyperlinks is different from other pages. They blend a picture into top hyperlinks on the main page, whereas other pages use a distinct colour separation.	Effectiveness	Annoying	

3	0	Negative	White space (Visual Design Principle)	When scrolling through certain pages with a subheading menu on the right the main body stays misaligned to the right, not filling out the page. Making it look unprofessional.	Effectiveness	Annoying	
4	4	Positive	Constraints. Help users recognize, diagnose and recover from errors (Heuristics)	When inputting an email, the user is unable to proceed if it doesn't follow the appropriate structure of an email.	Safety	Helpful	
5	2	Negative	Error prevention (Design Principle) Help users recognize, diagnose and recover from errors (Heuristics)	When filling out a form there are no restrictions on what can be submitted, besides email. Which is not verified. This can lead to user error creating faulty submissions unknowingly.	Safety Efficiency	Frustrating Annoying	

6	0	Positive	Consistency & Standards (Design Principle)	The home icon is a house that is similar to its real-world meaning. This allows the user to connect the icon to its function, going to the home page.	Learnability	Helpful	
7	2	Negative	Aesthetic & minimalist design (Heuristics)	These two icons make the headings of text either slightly larger or smaller. They change nothing else and are redundant and the headings are already highlighted with colour to bring attention to them and are larger than the body text. This is a redundant feature and only takes up screen space. Feature bloat.	Utility Efficiency	Confusing Annoying	
8	3	Positive	Affordance (Design Principle)	When hovering over subheadings and interactable icons the mouse changes its design to a finger mouse and the item is highlighted/changes colour. Allows users to know what they can interact with.	Effectiveness	Satisfying Helpful	

9	2	Negative	User control & freedom (Heuristics)	When interacting on this hyperlink it sends you to an online pdf file outside of the website. Thus, features of the website aren't integrated into it, making it difficult for the user to navigate back.	Efficiency	Frustrating Annoying Confusing	<p>This year, add a <u>12 Days of Goodness Advent Calendar</u> into your family's lead up to Christmas, find a way to give and receive all that is good.</p> 
10	4	Negative	Help & Documentation (Heuristics)	There is no built-in language feature for non-English speaking users, making the website unusable.	Effectiveness	Frustrating Annoying	
11	1	Negative	Error Prevention (Heuristics)	When adding items to the cart you can add an unlimited number of items and proceed to checkout. This makes the website feel unpolished, as allowing this amount is absurd and can allow accidental user inputs.	Safety Efficiency	Annoying Entertaining Frustration	
12	3	Negative	white space, alignment (Visual design principle)	When adding several thousand products to the cart the cart value can overlap other text. This makes other icons unseeable and seems unprofessional.	Effectiveness	Annoying	<p>1 Gift details</p> 

13	2	Positive	Constraints. Help users recognize, diagnose and recover from errors (Heuristics)	When clicking on an empty cart it will prevent the user from accessing the cart and give a pop-up indicating the error.	Safety	Helpful	
14	5	Positive	Complementary colours. (Visual design principles)	Consistent navy blue and red colour palettes are used throughout the website. Giving a cohesive feel with the colours matching well.	Effectiveness Memorability	Aesthetic Enjoyable	
15	3	Negative	User control & freedom (Heuristics)	When accessing the centre for restoration subpage there is no navigation tool to return to the main page.	Effectiveness Learnability	Frustrating Annoying	
16	1	Negative	White space (Visual design principle)	When on 200% zoom the borders of pages will come exactly to the pages content, as well as some icons overlapping with other ones. This fills the screen too much, making it look unorganised.	Effectiveness	Annoying	

Detailed Analysis & Solution

Negative issue 1 - Reference 5

Analysis:

When filling out a form, especially one which pertains to necessary information to make and record a transaction, there should be appropriate error prevention and assistance. This is because the information given is used to contact users and ensure relevant information of the actions, they submitted are sent back to them and kept record of. The salvation army's website lacks appropriate input boundaries allowing anyone to type something non-sensical into a field or miss a couple of digits on their phone number. This creates safety issues in terms of any personal details which could be sent somewhere else, or the information being lost. Thus, not having preventative error checking can negatively affect the safety of user's information and their time submitting the information. Leading users to be frustrated having their time wasted and annoyed if it had sensitive information, as it could have payment details or private information.

Solution:

An easy solution is to create input error checking, as they already have with the email input. This can be used for the phone number, only being allowed to input numbers up to a certain length depending on the region. If there was to be an error, there can be a pop-up correcting the user. As well as suburbs using dropdown menus with existing suburbs to select from to prevent users from incorrectly submitting a wrong place. This helps prevent incorrect submissions of user's information, as well as correcting them if they have made an error.

Negative issue 2 - Reference 15

Analysis:

When accessing certain pages on the website it will take you to one not too dissimilar visually, housing content regarding what the user interacted with. However, there are no features which allow you to navigate backwards or even to the home page. It makes the user stuck on this page unless they go onto a new browsing tab and go to the website through there or use the browsers history feature to go backwards. This restricts the user's control and freedom of freely exploring the website, making unnecessary navigation restrictions. If users mistakenly access this page, then going back is an annoying or impossible task depending on their proficiency with the browser. This would create annoyance and frustration when the user wants to go back to the page they were previously on or to the home page.

Solution:

An easy solution is to create a consistent embedded link on all pages accessible on the website, allowing users to quickly and conveniently go there. There should also be integrated back tracking in every page, so the user can go back to a specific page rather than finding it again. This feature is found on most pages besides a few.

Negative issue 3 - Reference 11**Analysis:**

When changing the quantity amount on purchasable donation packages there is no upper limit to what can be added to the basket. This negatively effects the safety of users as they may unknowingly add uncapped amounts of product they may accidentally purchase. It allows incorrect input which can create extra steps effecting efficiency of completing the task, as the users need to reconfirm errors. This is annoying to users as it takes extra time to prevent something which is absurd, like buying 10000 \$22,800 donation packages, however also entertaining to look at. It may also lead to potential mis purchases of donation amounts the user didn't want, creating frustration.

Solution:

An easy solution is to cap the amount of the purchase quantity, when going over that amount it can provide a pop-up telling the user of the amount they put in and making sure it wasn't an error. This can prevent absurd quantities being aloud for regular users unless they meant to purchase that amount. Making the purchasing process safer and less error prone.

Negative issue 4 - Reference 16**Analysis:**

When using the zoom browser feature at 200% the website loses the white space bordering the text and menus and creates overlap between other icons, such as the search bar and its neighbours. This removes the white space of the website, which is crucial for making the content look less cramped together and more readable, as well as making some functions like searching more difficult. This can be annoying for users, especially when the users using this function needing the most assistance with visibility of the content, where spacing improves readability and usability of the website.

Solution:

An easy solution is to properly code the website formatting to accommodate all screen resolutions with all zoom ratios. This can allow all users using different screen resolutions to have access to all zoom ratios without negatively impacting the website structure and usability.

Negative issue 5 - Reference 3***Analysis:***

On certain pages, particularly ones with long text and a side menu for subheadings, the page is formatted to accommodate the body of the text to be on the left and the subheadings on the right. The problem occurs when scrolling down the main body content continues to stay aligned to the left. This creates improper use of white space on the right side of the page. The content being off-centre can lead users to think the website looks unprofessional and unesthetic. It can also be annoying for the user's eye positioning, with people naturally looking centrally, if users have to have their eyes shifted to the left this change would be frustrating.

Solution:

An easy solution is to have the body content wrap under the subheadings on the right side of the page. This can allow the page to have balance again and be more aesthetically pleasing to the user. To accommodate the dropdown subheadings not overlapping with this text the dropdown can be fixed to only allow one opening at a time, thus only allowing it to go down a fixed amount in which the body text can go below.

Negative issue 6 - Reference 9***Analysis:***

When interacting with certain hyperlinks the website would take the user outside of the website and into a pdf web file. This takes the user outside the domain of the website, restricting the user's control and freedom, as they can no longer navigate back to the previous page or the home page. This can be annoying and frustrating to users as they will have to use the browser functions to get back to the website. Not only is the backtracking and website navigation an issue but it also means elements the website is trying to provide the user with are not fully integrated within the website. This can be problematic for users who are not well adjusted to the features. Having off site resources takes users outside the website and into a whole new website format and environment, which can be confusing.

Solution:

An easy solution to this is to have the elements integrated into the website. It seems the website wants to allow users access to an online pdf, however they can just use a downloadable file which doesn't remove the user from the page they were on. They can also display the image they want the user to download, informing the user of what it is they are doing and allowing them to decide on whether they want to interact with it or not.

Negative issue 7 - Reference 10***Analysis:***

The website has no language feature for any non-English speaking language. This restricts access to the content and functions of the website to users who don't speak English. This is a crucial feature to help users with the use of the website. For users who don't speak English they can be annoyed and frustrated by the inability to use the website unless they use third party, such as browser translation. This can be annoying and not work well depending on the website. Especially considering this is an international organisation it should cater for multiple languages on its website.

Solution:

An easy solution is to have an integrated function to change the language of the website for most if not all languages. This can easily be done by using google translate to convert all the text on the website into all the available languages or to get the website translated via more official means. This can allow for more inclusivity for all language speakers.

Negative issue 8 - Reference 12***Analysis:***

When in the process of purchasing donation bundles there is an issue with displaying the total value of the donation when the user is checking out. If the value is over a certain amount or if the website is zoomed in too far the value of the donation overlaps with the quantity making it hard to read anything. This comes from the incorrect usage of spacing and alignment, as these important elements are being properly separated in all cases. This can be annoying to the user if they are trying to see if they accidentally made a mistake with the quantity and it's made difficult to read and fix. This also reflect poorly on the website's quality, as users could question the professionalism of a website which allows such issues.

Solution:

An easy solution to this is to have the cost amount below the quantity. This allows for the elements to not overlap regardless of how large the cost amount is. This then also allows for the zoom in feature to have less of an impact on whether this issue will show up.

Mobile Design Analysis & Solution

Issue - Menu button in top left corner – Touch design

Analysis:

When using the mobile version of the website important icons like the menu and donate button are at the top left/right of the screen. This negatively impacts the touch design of the website. This is because very important features are accessed through these links. The positioning of the buttons in far reach places from where the users thumb naturally sit make it more difficult to use them. This can annoy and frustrate the user as the menu button holds all the main navigation of the site and the donate button is one of the main features of the website.

Proposed solution:

An easy solution would be to put some of the icons at the bottom where they are easier to access from the users natural thumb placement. Having the menu in the bottom left can allow for the user to not have to reposition their phone to touch the top right of the screen, preventing this frustrating issue.

Issue - No usage of progressive disclosure

Analysis:

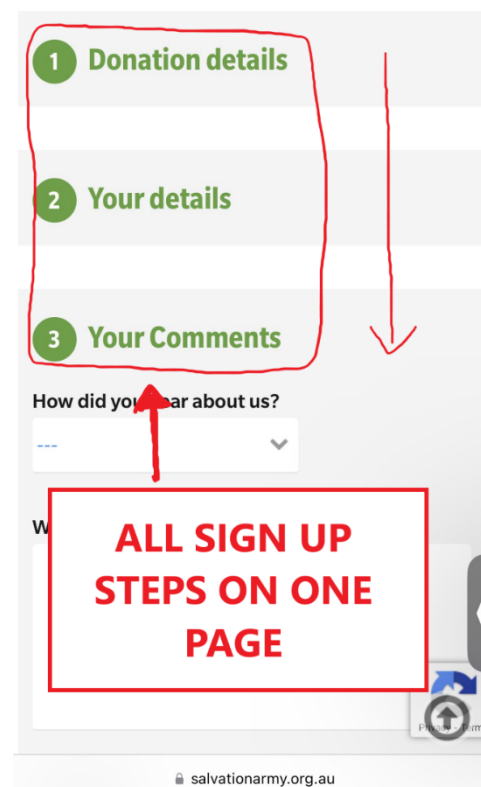
When the user fills in their details to donate, where they input all their information including their payment information, details and any comments is on one page. This improper structure and layout can make the user confused and annoyed as they must input all this information on one page, having to scroll up and down and make sure everything's correct before submitting.

Proposed solution:

An easy solution is to integrate progressive disclosure by separating the three different sections the user is going to be filling out into three different pages. This way the user can go through the donation process one step at a time, with all previous steps done being confirmed correctly. This can give a sense of helpfulness and satisfaction to the user.



Please donate now to leave no one in need.

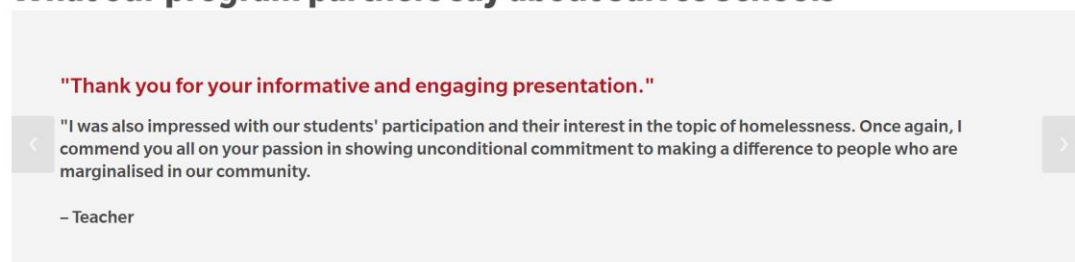
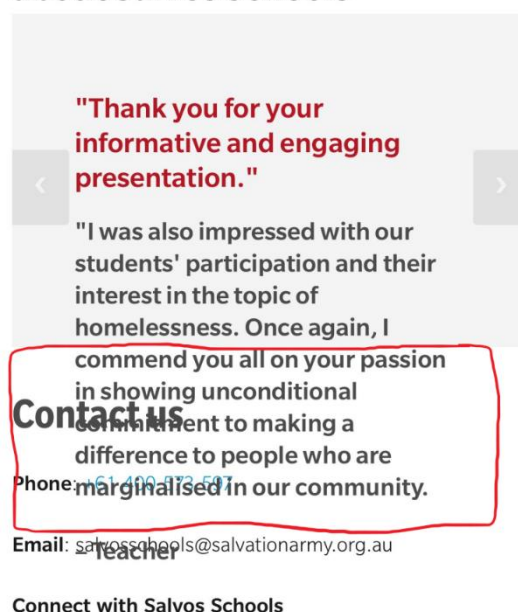


Issue - Poorly ported**Analysis:**

When going through certain sections of the website it can be clearly shown that areas of content have not been appropriately transferred to a mobile environment. This can be seen with some text boxes going outside of their boundaries and overlapping with other text underneath it. This reflects negatively on the visibility and consistency of the website, as information is being blocked and text should stay within its bounds. This can make users annoyed as they would need to decipher the text that's being overlapped with, making it unnecessarily more difficult for the user and making the website look poorly built.

Proposed solution:

An easy solution to this would be to make sure that the HTML coding for every aspect of the website can be properly converted into every type of screen resolution without loss of content, as to accommodate any user's device, such as their phone, iPad, desktop or ultra-wide screen.

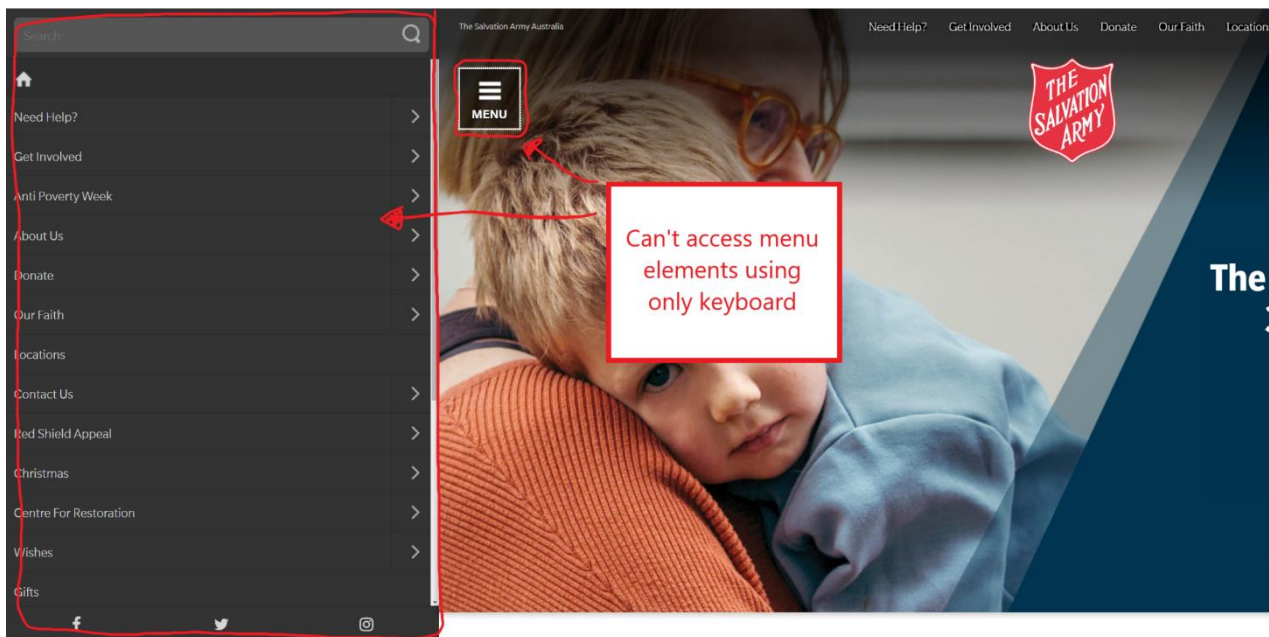
What our program partners say about Salvos Schools**What our program partners say about Salvos Schools**

Accessibility Analysis & Solution

Issue - Screen Reader:

Analysis:

When using the Narrator application on the Windows operating system to navigate through the page, you cannot interact with any of the subheadings revealed by the menu button through only the keyboard. Navigation can only be done sequentially down the page and once at the bottom, the menu pop-up is still inaccessible. The only way of accessing this pop-up is by using the mouse to click on a non-hyperlink section, then giving you access to traverse with just a keyboard. This is extremely detrimental to the usability of the website for the blind/visually impaired. This is because the need for using a mouse presents problems, due to needing a high level of positional accuracy, whilst the user is unable to know where they are at any given time on the screen. This restricts various pages of useful content from blind users. This issue correlates to a direct violation of the Web Content Accessibility Guidelines section 2.1.1.

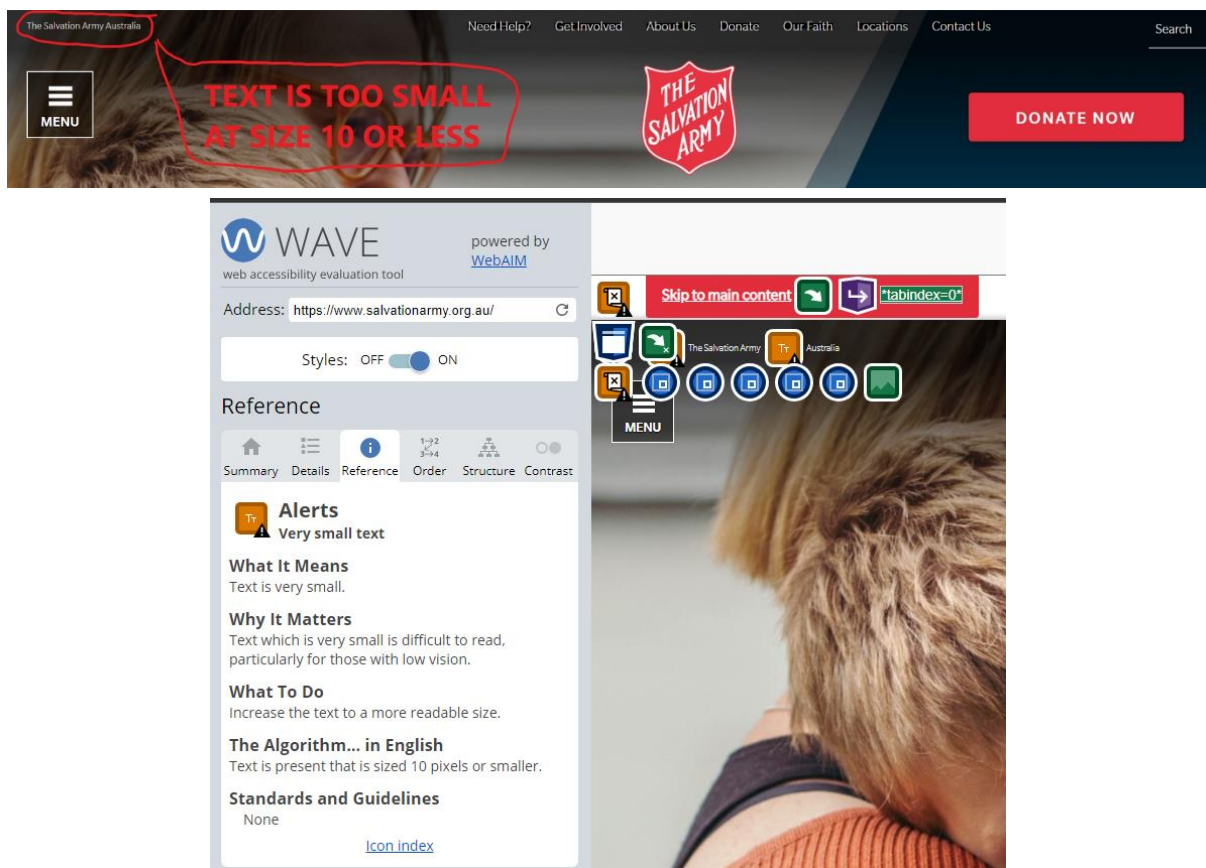


Proposed solution:

A solution to this issue would be to properly structure the HTML code such that when navigating the website through each interactable element the pop-up elements are the next immediate element to be selected when they are brought up. This is because if a user interacts with the menu button it is most likely they want to access something from the menu subheading, thus it would make sense to have the next element be the start of the menu subheadings when using keyboard navigation.

Issue – Too small font size:**Analysis:**

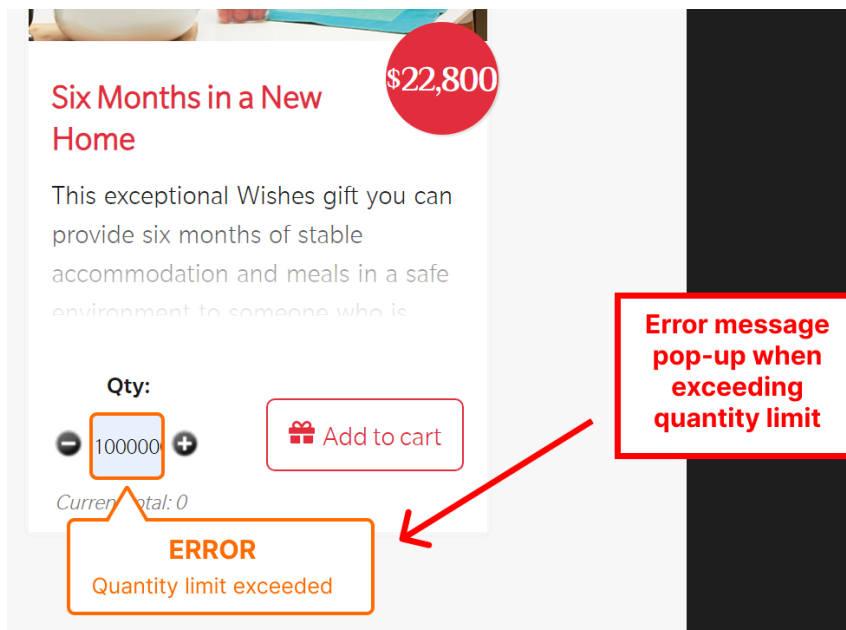
Another visual accessibility issue is the size of text used in parts of the website. Parts of the website have words in a font size that is less than 10. This negatively effects the visibility of the information, especially for users with a visual impairment. Users who already have difficulty with vision will be unable to have similar access to the website's contents compared to everyone else. This can leave these users confused trying to figure out what they are reading and end up frustrated by the lack of accommodation for them. This issue correlates to a direct violation of the Web Content Accessibility Guidelines section 1.4.12.

**Proposed solution:**

An easy solution to this problem would be to keep a consistent font size for all words and never have any words be less than 10/11 size font. This ensures that all words can be appropriately and comfortably read by all users regardless of their physical abilities.

Solution Sketches

Solutions sketch – reference 11:



Solutions sketch – reference 5:

First name: *

Last name: *

Contact number: *

Email: *

State: -- Please Select --

Suburb: *

School type: *

hello

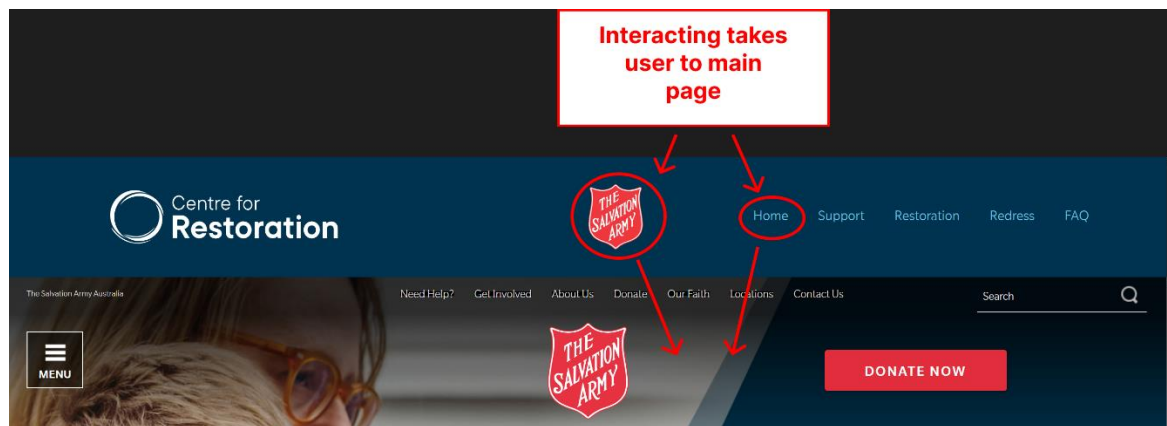
error

ERROR: Invalid input

ERROR: Invalid input

Error message pop-up when user inputs invalid characters or submissions

Solutions sketch – reference 15:



Solutions sketch – reference 3:



The Salvation Army is a worldwide Christian church.

Our faith convinces us that hope, purpose and fulfilment can be everyone's story. Whether you're looking for connection, guidance or a community of like-minded people, The Salvation Army welcomes you.

Our local churches offer a community presence around the country. We provide a huge diversity of spiritual and social activities. We invite everyone to give us a call or drop in for a chat.

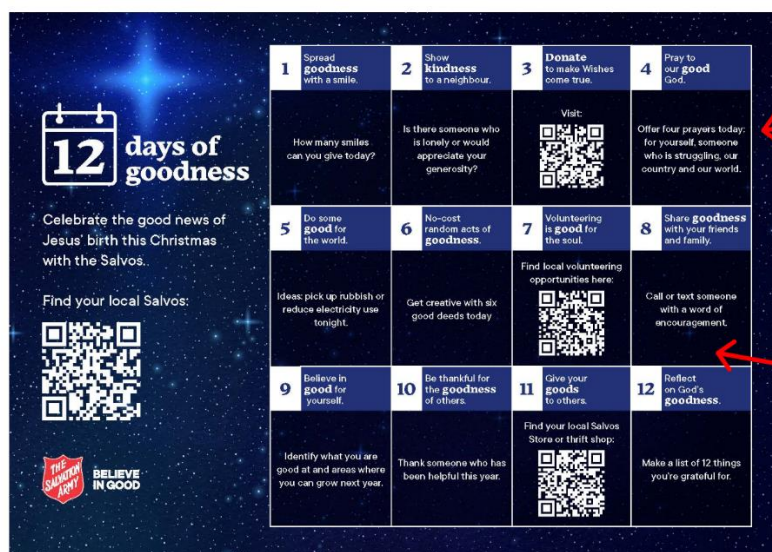
If you've got questions about faith, you want to explore Christianity, or you'd just like to connect with other people in your community then our churches can help. Scroll down to search for your local Salvos.

Fixed white space issue

Solutions sketch – reference 9:

12 days of goodness

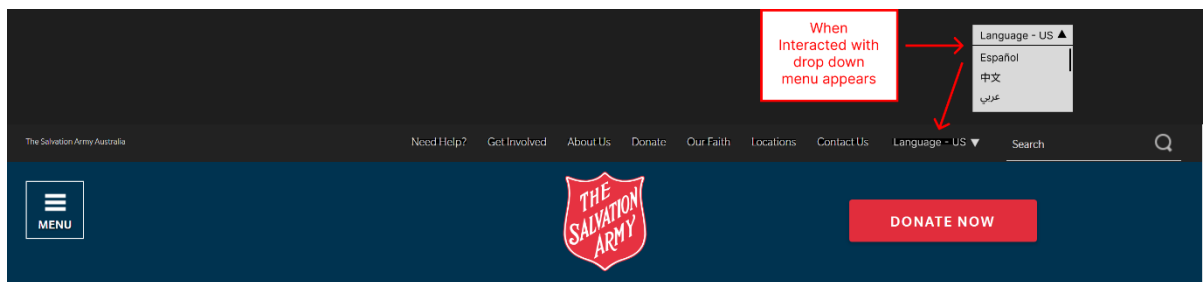
Use this advent calendar to share and experience goodness as you count down to Christmas.



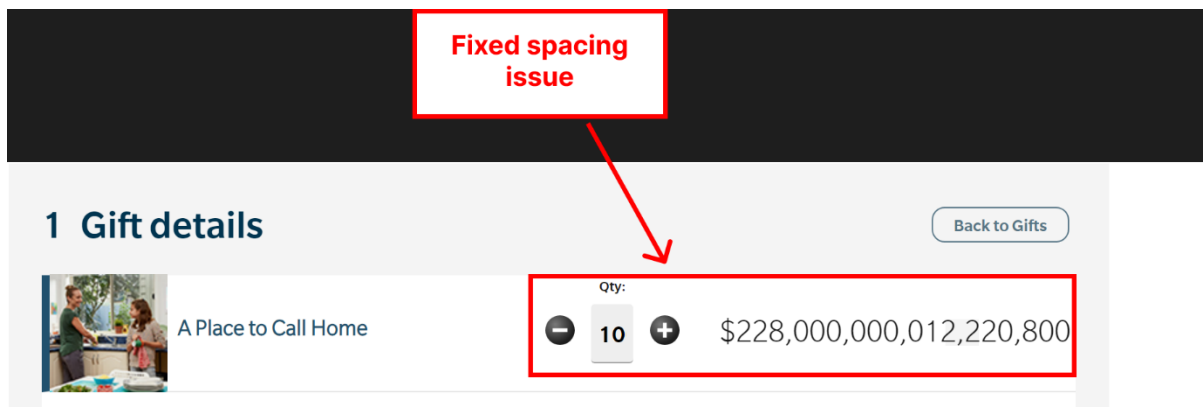
When picture is interacted with it takes user to the online pdf

When hovering mouse changes icon and transparent grey colour is applied

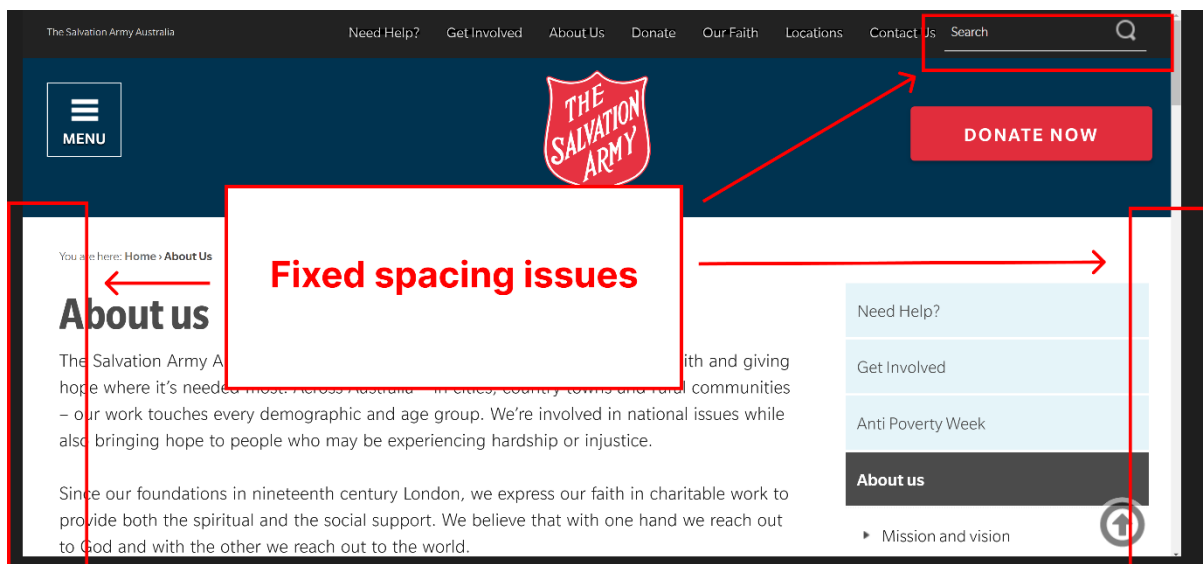
Solutions sketch – reference 10:

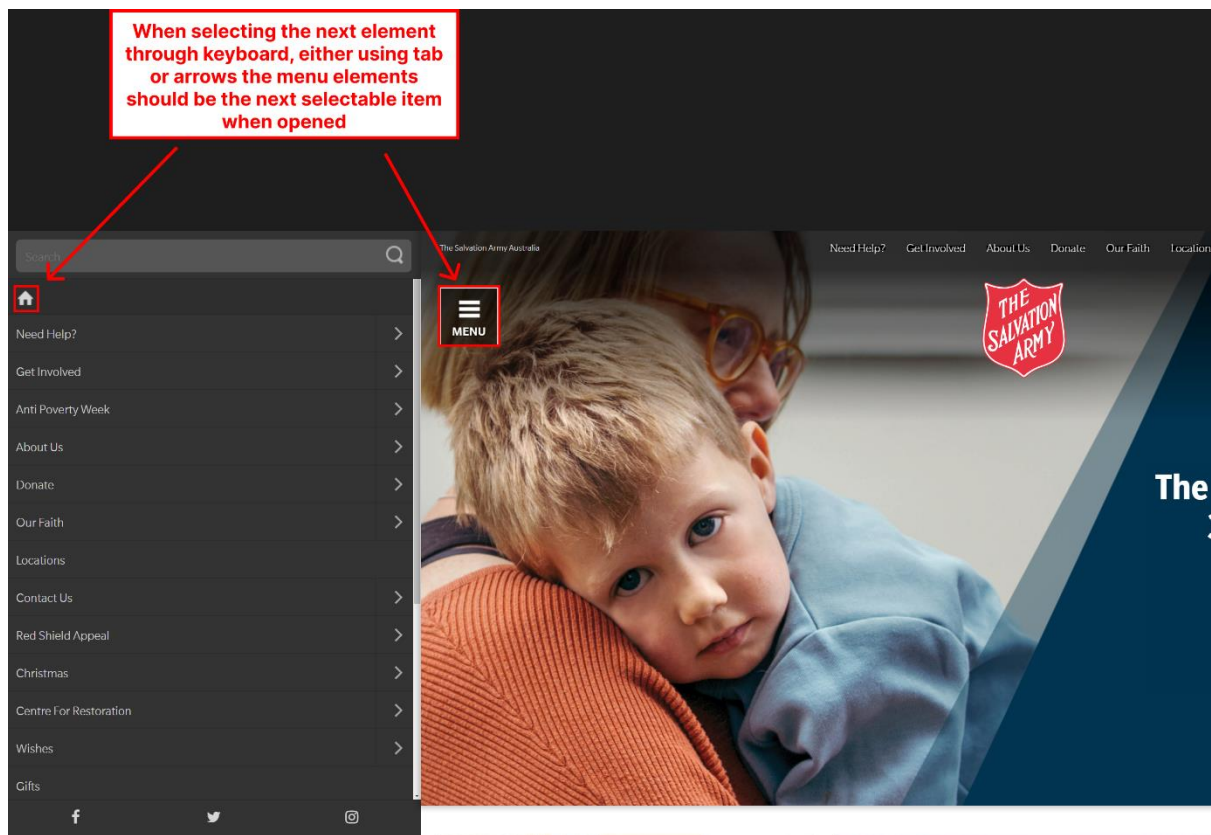
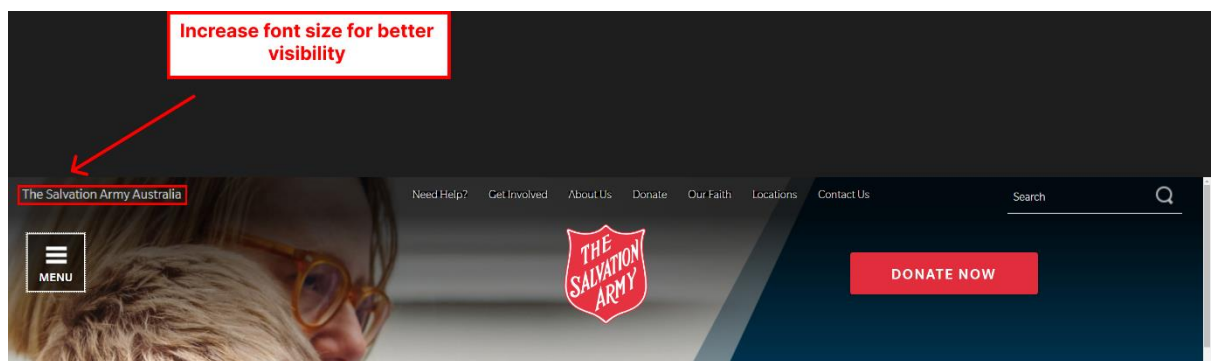


Solutions sketch – reference 12:

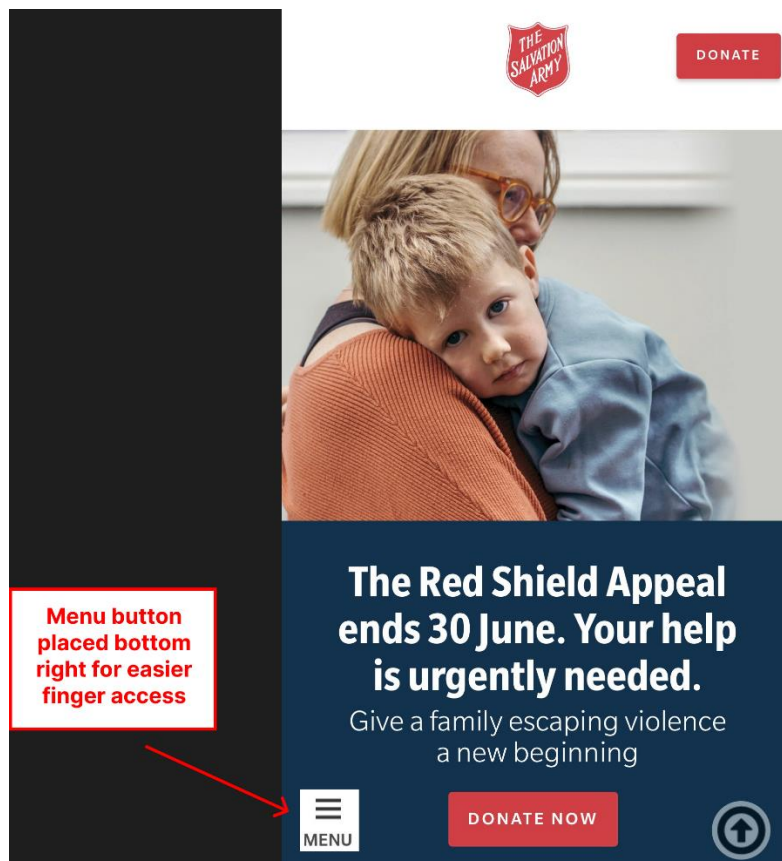


Solutions sketch – reference 16:

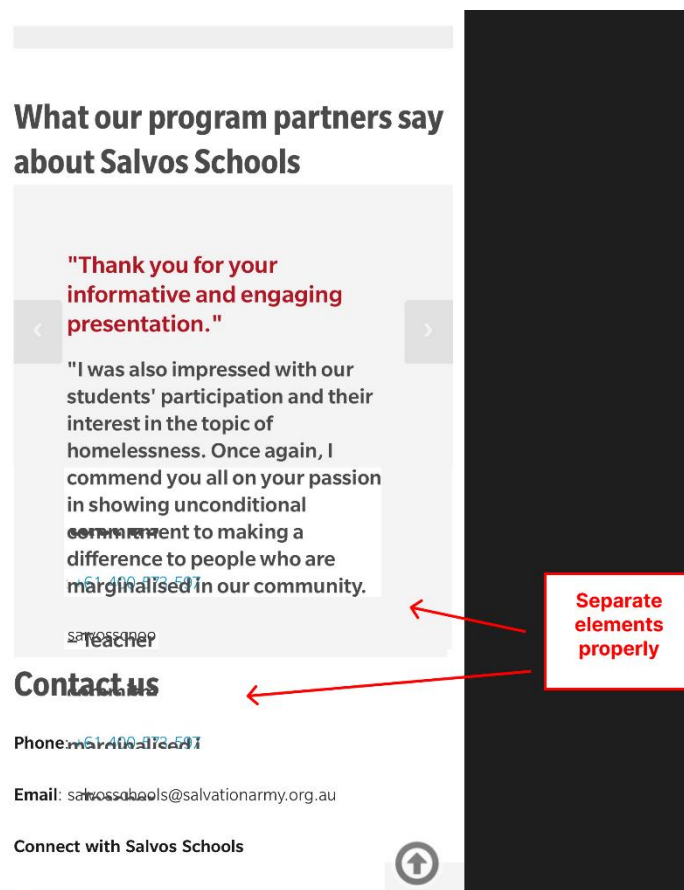


Solutions sketch – Accessibility Design 1:**Solutions sketch – Accessibility Design 2:**

Solutions sketch – Mobile Design 1:



Solutions sketch – Mobile Design 2:



Solutions sketch – Mobile Design 3:

The diagram illustrates a mobile app design for a donation process. It consists of two screens and a central text box with arrows pointing to specific elements.

Left Screen:

- Amount: \$90
- Text: "\$90 can help shelter a mother and children fleeing violence in Salvos Emergency Accommodation."
- Destination: Red Shield Appeal
- Payment method: Credit Card (American Express, Mastercard, Visa), Direct Debit (Bank), PayPal
- Text: "Please select how you would like to donate."
- Next button (circled in green)

Right Screen:

- City / Suburb: (input field)
- State: (dropdown menu with "Please choose one")
- Postcode: (input field)
- Country: Australia
- Link: Other countries donate here
- Remember my details for next time: (checkbox)
- Previous button (grey) and Next button (circled in green)

Central Text Box (Red border):

Interacting with next button takes user to new page which they can traverse back from

Two red arrows originate from this text box: one points to the "Next" button on the left screen, and the other points to the "Next" button on the right screen.