

# **HCl: Assignment 2**

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## Introduction

This document is the evaluation of grocery shopping on Tesco.com (Tesco Plc. 2020), using an expert evaluation and user study.

## Evaluation Problem

Tesco.com was chosen as the evaluating application (app). When the evaluator was shopping they found some of the features frustrating and not user friendly. This evaluation is focusing on the groceries section of the app. The focus here is the points in the app that aren't helpful to the user experience. The user experience includes how the app looks, how easy it is to navigate, and tools that help the user in achieving their goal when using the app, which in this case is ordering shopping.

The evaluation will go through the steps that the user takes when they do a weekly shop. These include but are not limited to: adding an item to basket; searching for an item; and finding a specific product due to dietary requirements.

The evaluator is looking forward to suggesting improvements for the app especially when it comes to decreasing the amount of time it takes the user to do their weekly shopping, and decreasing the stress that is involved with doing a weekly shop online.

## Similar Apps

The apps below are similar to Tesco.com as they all offer groceries online.

### Sainsbury's

The app design of Sainsbury's (J Sainsbury Plc. 2020) has a clear colour scheme, everything is white and orange like the logo but there is a lot of information at first glance, which may overwhelm the user. The pro's of this app are: The ability to hover over menu buttons; a dietary profile and the clear display of price to the user. The con's for this app are: an automatically generated favourites list; multiple different menus and a change of style in different sections of the app.

### Asda

The app design of Asda (2020) has a clearer information layout, but no distinct colour scheme; the buttons are different colours to the logo: not helpful for when the user is trying to distinguish what is able to be clicked on at first glance. The pro's of this app are: Easy to add favourites; shopping lists that you can easily add to a basket; and a similar design across the app. The con's of this app are: the basket is not easy to glance at on the homepage; you can't search with a list of items; and there is too much information on the basket page.

## **Waitrose**

The app design of Waitrose (Waitrose & Partners, 2020) has a clear design to it. There isn't too much information and not too many colours; this gives a sense of professionalism from the app and simplicity to the user. The pros of this app are: you can multi-search; add an item to your favourites instantly; and the pages are simply laid out. The cons of this app are: the menus don't have hover over buttons; it has limited dietary options when looking at products and there is no way to add a previous list to your basket.

## **Evaluation Approach**

### **Procedures used**

The evaluator used two procedures; expert evaluation and user study. Both procedures were used as they gave two different perspectives on the app, one from a experienced user and another from a first time user.

In accordance with the guidance set by Trory (2020), the expert evaluation was conducted by the evaluator and two other experts . This involved doing a heuristic evaluation on the app, which is an examination of the interface to judge its compliance with recognised usability principles, these principles are numbered and referenced by number in the report: 1 is visibility of system status; 2 is match between system and real world; 3 is user control and freedom; 4 is consistency and standards; 5 is error prevention; 6 is recognisable rather than recalling; 7 is flexibility and efficiency of use; 8 is aesthetic and minimalist design; 9 is recognise, diagnose and recover from errors; and finally 10 is help and documentation (Nielsen, 2020). To do this the evaluator proposed a task list, this involved tasks that were common for a user of the app to do (McCloskey, 2014). Using the task list, two passes of the app were done. The first was intended to get a feel for the interaction with the app and how it was laid out. The second was to allow the evaluator to focus on specific elements of the app whilst knowing how they fitted into the app as a whole. The findings were then recorded. The two other experts did the same procedure and the first evaluator recorded their findings in the same table for a balanced view over the app.

The user study, which was conducted in accordance with the procedure set by Trory (2020), was conducted by the evaluator and involved users that hadn't used the app before to observe their interactions with the app. This involved an interview based around questions proposed by Doody (2016), which is in Appendix C, and a practical use of the app using the task list from the expert evaluation.

A suitable test plan, which is in Appendix B, was made to ensure testing was done in a professional manner. The test plan included: what product was under test; the participants of the test; the equipment used; the task list; the responsibility of those involved; the location and dates of the tests and finally the procedure used when testing.

The user study had 3 users who all did the same process. The interview involved the users answering questions involving their particular habits when shopping and what they look for when

using a shopping based app. The practical application involved the user working through the task list with no help, only prompting if needed by the evaluator, and studying how they interacted with the app. After the practical, the user answered some more interview questions about their experience with the app, before the evaluator closed the interview and thanked the user.

## How data was collected

Findings from the expert evaluation were abstracted into a table that described the problem, which evaluator found the problem, and the heuristic it violated. This is located in appendix A. Findings noted whenever a heuristic was witnessed, these violations range from errors to inconsistency in the app.

Answers to the interview were summarised in a table located in appendix D. This describes the question asked, the responses by the 3 users and a summary of what was found based on the answers the users gave. The user studies were recorded for the evaluators use when analysing the study and deleted after publication of the evaluation. The recordings allowed the evaluator to go back and look at how the users interacted with the app and any problems the user might of found but not described.

## How it was analysed

Tables from appendices A and D were amalgamated into one triangulation table (Trory 2020) see appendix E. This included the problem, which user or evaluator found the problem, what procedure it was from, the severity (out of 5) the problem was and what the evaluator thought a good fix for the problem was.

This table was then analysed to see what heuristics all the problems violated, the heuristics then allowed the evaluator to accurately suggest redesign ideas that would improve the functionality, usability and general look and feel of the app and ensure the app didn't violate any usability heuristics, once these were implemented.

## Findings & Discussion

Results have been presented in appendices A and D. Both procedures produced a range of problems that were different to one another making them both beneficial to the evaluation, the results were collated into appendix E, which gives context on the problems below.

Appendix E problem 1 highlights an inconsistency in the app when clicking on the logo as it changes where the logo links too. To resolve this the evaluator suggests a change in the logo when on a different part of the app to avoid confusion, and not violate heuristic 1 and 4, and therefore potentially reduce complaints from users.

Appendix E problem 2 highlights an inconvenience to the user when navigating from the main app to the groceries section. When doing user testing the users did not notice it as an inconvenience, however this is time wasted by the user, and therefore there only needs to be one click to get to

groceries. This would increase the efficiency of the app and therefore get rid of the heuristic 8 that it violates.

Appendix E problem 3 is an issue that the evaluator feels violates the users right to privacy. Including a guest option would resolve the need for account creation, and although it would have limited functionality it would allow the user to stay anonymous while using the app. This gives the user more freedom, therefore providing them with heuristic 2 and 3.

Appendix E problem 4 is a serious issue with the app. This was pointed out in the expert evaluation and user testing, and that the favourites on the Tesco app do not act like normal favourites, and therefore the user has to learn what their version of favourites are, which is a violation of heuristic 7. A possible solution is to abolish the feature, or improve it so that the user adds favourites manually. This would naturally be the user's first thought and therefore no longer in violation of that heuristic.

Appendix E problem 5 highlights what should be done when the user makes an error when searching. The other evaluators noticed this. The app displays the wrong product when the user types in a small mistake, this violates heuristic 7. The solution would be to improve the search algorithm or suggest similar items to the user, so that more of a scope is covered. This would improve user intractability leading to less time users spent navigating when trying to find a product.

Appendix E problem 6 highlights the little testing done with cross platform compatibility. This is a direct violation of heuristic 9 and needs to be fixed. This can be done by implementing deletion on mobile and checking other devices to ensure compatibility.

Appendix E problem 7 highlights bad design within the app. There are so many favourites after a few shops that it just becomes a list, this violates heuristic 2. This can be solved by implementing the fix mentioned in problem 4.

Appendix E problem 8 is interesting as there are two different sections that seem very similar. This is not instantly recognisable to the user and therefore a violation of heuristic 4 and 6. Therefore Tesco need to create a stark difference so that users instantly understand how that section works, to ease the confusion for their users.

Appendix E problem 9 highlights a simple fix that makes a big difference to user interaction. By implementing a remove button Tesco allows users to have control over the information that is presented to them, fulfilling a the heuristic 3 requirement.

Appendix E problem 10 was included as the user should be given an exact price. This leads to a distrust and confusion in the system by the user, which is a direct violation of a heuristic 2. This can easily be fixed by giving the customers the exact prices and the exact basket value. These prices should be updated only when the user leaves the session and only if necessary.

Appendix E problem 11 is a suggestion for the app to decrease the amount of time it takes the user to do a shop, which is heuristic 6. Allowing the user to add a specific previous shop or ready made shop would allow them to speed up the process leading to less stress as they don't need to remember what to add to their basket

Appendix E problem 12 highlights a user interface flaw in the app, the basket is not prominent enough to be deemed clickable by some users, violating heuristic 4 and 6. Adding the word basket next to the basket icon would solve this and allow easier interaction between the app and user.

Appendix E problem 13 highlights the redundancy on the app especially in menus, which is a violation of heuristic 8. To solve this make the app simple to use with an easy path via menus to each product.

Appendix E problem 14 is a suggestion pointed out by a test user, which allowed the adding of dietary requirements to the profile of the user, so that you could easily filter by the allergies you had with out the painstaking process of working out what a product has in it. This would allow ease of use by the user improving the app for those affected by this and not violating any heuristics.

Appendix E problem 15 is not helpful to the user as it is in the wrong place, violating heuristic 6 for not being intuitive. Being easy to use is a good design for an app and intuitive buttons come hand in hand with this, so moving the button to make it more prominent is a must.

Appendix E problem 16 is consistent in the app. Ensuring that these are easily navigable for the user will allow the user to easily add them to their basket if need be. If this was implemented users would have very little trouble when looking for Christmas items, and this would not violate heuristic 4 or 7.

Appendix E problem 17 relates to another inconsistency in the app, the main tabs, which are a violation of heuristic 4. The differences need to be resolved to avoid a miss click and annoyance by the user. Separate these tabs from the others or open the page in the same space the user is currently in. This will improve the app quality as the app will be logical to the user.

Appendix E problem 18 highlights an interesting design they should implement, hover over buttons in the menus. A user can then easily see what is in each category, allowing them to find the product they need, fulfilling heuristic 7, and ensuring the app is a better design for the user.

Appendix E problem 19 shows redundancy and poor implementation. These sorts of errors hinder a user's experience, creating confusion partly due to nothing happening when clicked on, which is a direct violation of a heuristic 5 and 9. By making sure the buttons on the app are up to date, and work properly, the app will be able to communicate clearly to the user.

Overall its clear to see that this app has some improvements to make to ensure the user experience is good and that all heuristics are satisfied.

## Conclusion

The limitations of this evaluation are that the user study was done using students who hadn't used a similar app before, and were only of a particular age group. Increasing the scope of the study would likely increase its effectiveness. The app only used the PC version when doing user testing so expanding to the mobile version with another set of users will increase the depth of the evaluation.

Future work would involve acting on the limitations of this evaluation, implementing a version of the app with the added solutions to the problems found, and then testing that app with this new varied group of subjects. Future work can also look into the similar apps mentioned at the start of the report and take ideas from these apps and implement into this app, after doing evaluations and user studies on them as well.

Overall, the scope of the evaluation could be improved along with some practical testing of implementation from problems mentioned.

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## Appendix

### Appendix A

| Problem  | Heuristic violated   |
|--|--|
| clicking on Tesco doesn't go back to Tesco.com just the groceries sections (evaluator 1) (evaluator 2)                         | heuristic 4 – consistency and standards  |
| two clicks for getting to groceries (evaluator 1)  | heuristic 8 – minimal design   |
| need to have an account to add to basket – no guest option (evaluator 1)   | heuristic 2 – match between system and real world – I can buy anon in shop                         |
| favourites only added when you purchase hard to therefore save stuff for later (evaluator 1)                                   | heuristic 7 – flexibility and efficiency of use – allow adding of fav before purchase              |
| search function requires exact words to get the right product otherwise suggestions might be wrong (evaluator 2) (evaluator 3) | heuristic 7 – flexibility and efficiency of use – allow for margin of error                        |
| the site is different on pc than mobile, cannot delete items from basket (evaluator 2)   | heuristic 4 – consistency and standards  |
| after a couple of shops favourites is just everything you've ever purchased (evaluator 2)                                      | heuristic 2 – match between system and real world – favourites is every week                       |
| there is favourites and usuals is there a difference? (evaluator 1)  | heuristic 6 – recognition rather than recall – favourites should be same as usuals so only needed? |
| can't remove favourites (evaluator 2) (evaluator 3)  | heuristic 3 – user control and freedom   |
| basket gives a guide price to customer without giving an actual price currently (evaluator 1)                                  | heuristic 2 – match between system and real world – show actual price!                             |

### Appendix B

#### Usability Test Plan

##### Product under Test

Testing the functionality of the Tesco Website

The general goals of the Tesco website:

- Allow users to pick from items in a shop
- Add these items to a basket and pay for them
- Allow these items to be delivered to the customer at their home or a nearby store

## Participants

3 participants will be recruited from the Human Computer Interaction module. The participants will have little to no knowledge of the Tesco website.

## Equipment

The equipment used will be zoom, a camera and screen share on the participants side. The evaluator will use a text document and recording software.

## Test Tasks

- Load up Tesco.com
- Find the groceries tab
- click on where you'd find groceries
- Sign in with the details given
- navigate to Christmas and add a beef roasting joint to your basket
- search for petit poi peas and add them to your basket
- add the peas to your favourites
- book a slot for click and collect at the Shoreham by sea extra for the next available time (don't actually)
- Look at your basket currently and uncheck allow substitutions on the beef
- find the special offers tab and locate the top offers and add the first one to your basket
- remove the peas from your basket and from your favourites
- find the white bread that is new in stock and add two of the first pack to your basket
- search for soup and find the no lactose soups available
- search with a list of items (eggs, milk, cheese, carrots, Pepsi), and navigate through the items found in the list.
- Whilst looking at Pepsi find out what is on the "rest of the shelf".
- Find the page for Tesco Finest Christmas Food
- Write a review for a product there (don't actually submit)

## Responsibilities

The evaluator and the test subject are involved with the test, and the test subject will be doing the specified tasks and the evaluator will be observing and interviewing the test subject.

## Location and dates

On Zoom, on the 21<sup>st</sup> December.

## Procedure

1. Introduction and legal documents
2. Current task
3. Attempt at completing this

4. Take notes on success rate and anything of importance
5. Repeat steps 2-4 until tasks are complete
6. Interview and any thoughts by the participant
7. Debrief and thank the participant

## Appendix C

### Interview

#### Brief

Is it okay to record this meeting? Hello my name is [X]. I am a student studying computer science. I am evaluating a chosen app using usability heuristics and interviews and testing via participants. The aim is to expand on the problems and design faults found and suggest ways in which to improve the app.

#### Background

- Age:
- Occupation:
- How do you tend to shop for groceries?
- Do you prefer a particular supermarket and why?
- Have you used the Tesco App before?

#### Specific

- How often do you tend to shop for groceries?
- How long would this tend to take you?
- Do you have a particular way of shopping to save you money and or time?
- How could improve your current grocery shopping experience?
- What do you tend to look for when using a groceries App?

#### Task scenarios

You are going to do your weekly shop online just before Christmas, you have decided to use Tesco.

- Load up the Tesco website and navigate to groceries
- navigate to Christmas and add a beef roasting joint to your basket
- search for Petit Poi peas and add the cheapest to your basket
- you might need more peas later see if you can favourite them
- book a slot for click and collect at the Shoreham by sea extra for the next available time
- You want a specific beef joint make sure that they don't substitute it
- Find the product that is most popular in top offers and add it to your basket
- remove the peas from your basket and favourites
- Add 2 new in stock white bread to your basket
- search for soup and find the no lactose soups available

- search with a list of items (eggs, milk, cheese, carrots, Pepsi), and navigate through the items found in the list.
- Whilst looking at Pepsi find out what is on the “rest of the shelf”.
- Find the page for Tesco Finest Christmas Food, and write a review for a product there

**Experience**

- Is there anything you feel the Tesco App should have that it doesn't?
  - Why are these not needed?
- Is there anything that stood out as not a great experience?
  - Why was that the case?
- At what points were the app not easy to use?
  - Why was this the case?
- Do you have any suggestions for improvement for the app?
  - How would this help you when shopping for groceries?

**Closing**

- Do you believe there is anything that we haven't covered today?
- Is there anything else I haven't considered that is important?
- Do you have any questions for me?

**Debrief**

- recap essential points and thank interviewee

## Appendix D

| # | Task/ Interview Question  | Responses   |   |  | Summary   |
|---|---|---|---|--|---|
|   |   | User 1  | User 2  | User 3   |   |
| 1 | How do you tend to shop for groceries?                                  | At physical location  | Go to the local supermarket                               | Go into the supermarket                          | Physical Location   |
| 2 | Do you prefer a particular supermarket and why?                         | Shops around, best deals and lots of produce only get from specific areas                     | Morrisons better selection value to stock                 | Morrisons/Tesco avoids all other, force of habit | Stick with the same places dependant on stock               |
| 3 | Have you used the Tesco App before?                                     | No  | Yes – club card   | No   | No  |
| 4 | How often do you tend to shop for groceries?                            | Once a week   | Once every 3 days   | Once a week                                      | Regular intervals, dependant on what they need              |
| 5 | How long would this tend to take you?                                   | 20 mins roughly – click and collect/ delivery   | 10 mins   | 30-40 mins                                       | Ranged between quick pop in to full on weekly shop          |
| 6 | Do you have a particular way of shopping to save you money and or time? | Best deals  | On sale for cheaper, go there go somewhere else for cheap | No up and down the aisles                        | People like good deals but also need their weekly shopping  |
| 7 | How could improve your current grocery shopping experience?             | Not having to deal with a pandemic, otherwise a list/see what recent purchased purchase again | Better selection at Tesco variants                        | Potentially online                               | Better selection, and an easy way to see previous purchases |

|    |  |  |  |   |  |
|----|--|--|--|---|--|
| 8  | What do you tend to look for when using a groceries App?                                   | Add items from previous shops to new shop, create pre built weekly shops, being able to browse by category, what specials are on.                    | Alcohol - needed   | Clear layout exactly what the price is. Pizza typed in clear deals and price picture and a way of sort e.g. cheapest.           | Clear layout exactly what the price is. Clear to user. Easy for the user to use; pre built weekly shops, being able to browse via categories, what specials are available.                                 |
| 9  | Load up the Tesco website and navigate to groceries  | Found with no problems   | Found with no problems   | Hesitated but clicked correctly   | Found easily   |
| 10 | Navigate to Christmas and add a beef roasting joint to your basket                         | Went all Christmas then into categories Christmas dinner – not was intended but still a valid method   | Went to the Christmas section, and got lost in the amount of products, eventually found mains and the beef                         | Went through menus and found with ease  | Lots of different ways to find the same products seems redundant, and some ways a lot more time consuming than others.   |
| 11 | search for Petit Poi peas and add the cheapest to your basket                              | Found with ease – search is prominent on the website   | Searched with ease no problems   | Searched incorrectly but found the correct product and added fine   | Searching tools works well. Easy for user to use. Sort by is similar to other websites – familiarity   |
| 12 | you might need more peas later see if you can favourite them                               | Looked in the obvious places, on the product preview mini and full page scrolled to find in reviews for favourites but cannot add them – design flaw | Looked in all the places it could be; where it is in the basket the mini product and the full page product showcases – design flaw | Looked around with the mouse and was very confused to find it cannot be found as they thought it would be a thing – design flaw | App flaw – Users showed an understanding of where the favourites icon should be placed i.e. in a prominent location next to product but app designed in a way that is not instantly recognisable by users. |
| 13 | book a slot for click and collect at the Shoreham by sea extra for the next available time | Prominent on the website to book a slot, easy menu to use no trouble here  | Prominent on the website to book a slot, easy menu to use no trouble here  | Got confused but when mentioned book a slot soon found the correct buttons, was annoyed about the limited availability and      | Prominent on website, and easy to use, might need some streamlining to show only available timings.  |

|    |   |  |  |  |  |
|----|---|--|--|--|--|
|    |   |  |  | redundancy of some of the tabs here  |  |
| 14 | You want a specific beef joint make sure that they don't substitute it  | Confusion over where the basket is – not prominent only basket icon – otherwise all good                         | Basket found easily substitutions also found easily  | Found with ease  | Basket needs to be prominent that it can be clicked on, substitute easy to locate  |
| 15 | Find the product that is most popular in top offers and add it to your basket                                       | No problems – easy to navigate   | No problems – easy to navigate   | No problems  | No problems here   |
| 16 | remove the peas from your basket and favourites   | Easy to add/remove things from basket – favourites n/a   | Easy to add/remove things from basket – favourites n/a   | No problems - obvious no favourites  | Easy to remove, two options decrease quantity or click an X. Favourites can't be removed.  |
| 17 | Add 2 new in stock white bread to your basket   | Went through the menus to the white bread, hesitated on where the new in stock stuff was easy to add 2 to basket | The website wants you to search for the product user went to search as it is easier than using menu, when using menu it was confusing and not easy for them to navigate to find the new in stock white bread | No prompting required and went straight for search and found the bread with ease and the new option in the settings. Showed me another way to get to them via the menus. | Searching is easy to use and prominent on this website hence why two users went for it straight away, also is quicker than using the menus that the first user did. New is easy to locate in the sorting part of the list and adding two to basket is trivial to user. |
| 18 | search for soup and find the no lactose soups available   | Search done before lifestyle/dietary easy to find and navigate   | Search done before lifestyle/dietary easy to find and navigate   | Search done before lifestyle/dietary easy to find and navigate   | Search done before lifestyle/dietary easy to find and navigate   |
| 19 | search with a list of items (eggs, milk, cheese, carrots, Pepsi), and navigate through the items found in the list. | List of items not quite obvious to user but saw the button after starting to use the search bar, navigation easy | Found instantly and no problems navigating through   | Found instantly and no problems navigating through   | List of items not prominent to some users, the colour scheme doesn't help on this website. List of items easy to put in as the interface is similar to shopping list   |
| 20 | Whilst looking at Pepsi find out what is on the "rest of  | Rest of shelf was not clear to the user, needed  | Found with no prompts no problems  | Confusion by the phrase found after scrolling  | Rest of shelf needs to be more prominent as it blends in with the other buttons, also is not   |

|    |   |  |   |  |   |
|----|---|--|---|--|---|
|    | the shelf”.   | prompting, blended in with the other buttons.  |   | through the items, wasn’t expecting it to be where it was  | in the right place and was told it should be at the top as if to say here are some similar products.  |
| 21 | Find the page for Tesco Finest Christmas Food, and write a review for a product there | Due to two menus for Christmas user struggled to find the Christmas food, and had to restart the process halfway through, reviewing was clear to the user            | Went to the full page Christmas menu and found the food quicker than user one and found reviewing with ease | Went through the menus to find finest Christmas with ease, and wrote and a review easily.  | No clear way to get to Finest Christmas as each user went about it a different way, and therefore might cause confusion to some. Review was easy to locate and use. |
| 22 | Is there anything you feel the Tesco App should have that it doesn’t?                 | Favourite not brought things   | Christmas stuff first tell you to go to different categories. List of products.                             | Favourites, shows offers that aren’t needed  | Favourites, and the way Christmas is laid out   |
| 23 | Is there anything that stood out as not a great experience?                           | shelf option not obvious – after knew, opening page a mess very cluttered, trying to find products hard when in sub menus of sub menus – especially speciality foods | Favourites – gold heart to easily add – what if I don’t want to buy it every time.                          | Rest of the shelf button in the wrong place similar to Pepsi but not quite, same above with special offers, 3 menus deep quite a lot lots of overlap too           | Cluttered pages, Favourites not implemented correctly, Rest of shelf not implemented correctly.   |
| 24 | At what points were the app not easy to use?  | Favourite not brought things – aggravating – no continuous between stores – for later  | Groceries drop down menu – not easy to use at first – goes in to more not the page                          | Easy fairly all the way through, tabs open new tabs instead of that page - no consistence, user feedback only allowed yes and not a no comment - look at recording | No consistence in website, favourites is not named correctly, a way to make some things dismissible would be helpful.   |



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| 25 | Do you have any suggestions for improvement for the app?        | Basket to be a drop down open/closed not constantly there too much info, dismissible notifications, don't need to know slots before checking out/ dismissible, easy way to access speciality food - not necessarily free from but not in free from – some chocolate, why is there two sections for Christmas - batteries in wrong place, some Christmas things not in both Settings that automatically applies preferences for food rather than having to do this on each and every search | Hover over buttons shows the categories instead of clicking. Book a slot shows too many unavailable, highlight the nearest one needs to clear. | Compress the menus get rid of the overlap, minimise the basket quickly, sort by a-z, get rid of the extra tabs or all open new tabs | User interface related, hover over buttons, compression of menus, extra ways of sorting, consistence in website, better ways to lay out products for ease of user. |
| 26 | Do you believe there is anything that we haven't covered today? | No   | My orders and my account haven't been touched on, especially dietary needs,  | No  | Look at my orders and my account to ensure evaluation hasn't missed important points   |
| 27 | Is there anything else I haven't considered that is important?  | No   | No   | No  | No   |
| 28 | Do you have any questions for me?                               | No   | No   | No  | No   |

## Appendix E

| # | Problem  | User test or Expert Evaluation? | Severity (1-5)   | Fix suggestion  |
|---|--|---------------------------------|--|---|
| 1 | Clicking on Tesco doesn't go back to Tesco.com just the groceries sections (evaluator 1) (evaluator 2)                         | Expert Evaluation               | 1 – minor inconsistency in website                           | Change logo slightly to show the change in new homepage for webpage, or make the logo not clickable.                                    |
| 2 | two clicks for getting to groceries (evaluator 1)  | Expert Evaluation               | 1 – minor inconvenience to the user                          | Clicking groceries takes you straight to main page for groceries no need for sub menus.   |
| 3 | Need to have an account to add to basket – no guest option (evaluator 1)   | Expert Evaluation               | 2 – user should have a right to privacy as they do in a shop | Localised basket stored in the cookies of the device allow the user to sign in as a guest/temporary user when buying shopping           |
| 4 | Favourites only added when you purchase hard to therefore save stuff for later (evaluator 1)                                   | Expert Evaluation               | 5 – user should be able to save favourites there and then    | Implement a wish list type function for whilst the user is shopping and call it favourites and allow users to add to it whilst shopping |
| 5 | Search function requires exact words to get the right product otherwise suggestions might be wrong (evaluator 2) (evaluator 3) | Expert Evaluation               | 3 – user should be allowed a margin of error                 | Search function should also suggest similar items if unsure about what the user has typed in.   |
| 6 | The site is different on pc than mobile, cannot delete items from basket (evaluator 2)   | Expert Evaluation               | 3 – the app should be familiar to the user on all platforms  | Implement removing items on mobile, as some users may not have a computer, and ensure the app looks the same on all platforms.          |
| 7 | After a couple of shops favourites is just everything you've ever purchased (evaluator 2)                                      | Expert Evaluation               | 2 – favourite items should only be your most purchased items | Tesco adds the whole shop to favourites let the user handle favourites themselves so its only the things they need every week.          |
| 8 | There is favourites and usuals is there a difference? (evaluator 1)  | Expert Evaluation               | 1 – minor inconsistency in website should be clear to user   | Show the stark difference between usuals and favourites, usuals are automatically generated and favourites are user generated.          |
| 9 | Can't remove favourites (evaluator 2) (evaluator 3)  | Expert Evaluation               | 5 – Allow the user control over their                        | Allow the user to remove favourites.  |

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|    |   |                   | experience  |  |
| 10 | Basket gives a guide price to customer without giving an actual price currently (evaluator 1)   | Expert Evaluation | 1 – Gives the user a general idea of how much it costs but not exact  | Also give the current price of the items in the basket.  |
| 11 | Allow the user to select/add previous shops to basket (user 1)  | User test         | 2 – Better user experience, saves customers time  | Notification when logging in, store the previous order on a section of the website, and add that to basket, notifying the user of unavailable products.  |
| 12 | Basket needs to be more prominent to let users know its clickable (user 1)  | User test         | 1 – Needs to be clear to user   | Add a clickable worded basket button next to the logo for basket.  |
| 13 | Lots of redundancy in the website especially with the way menus are laid out (user 2) (user 3)  | User test         | 2 – redundancy causes confusion to user   | Add only one simple way to get to a particular set of products and make this simple to use.  |
| 14 | Add ways for the user to specify dietary requirements in settings and easily get to foods that are appropriate for this (user 1) (user 2) | User test         | 2 – ease of use for the user and saves them time  | Add a setting for specific dietary requirements (no lactose, vegan etc.) and have options to show foods of different categories suited to these options. |
| 15 | Rest of the shelf button not prominent to users needs to be for the whole category of items (user 1) (user 3)                             | User test         | 3 – buttons should be easily visible to users, and allow the users to take control of their shopping experience | Move the rest of shelf button to a more prominent location maybe the top of the page. Ensure it is obvious that it is meant to be clicked on.            |
| 16 | The Christmas section of the app is laid out differently to the rest of the app therefore not easy to shop from (user 1) (user 2)         | User test         | 3 – Christmas section should be consistent with rest of website to allow customer a stress free experience      | Decrease the complexity of the Christmas section by making it similar to the rest of the website sections.   |
| 17 | Consistence of website tabs (user 3)  | User test         | 2 – Confusing to user why do some open a  | All tabs should open a new page or a new tab not a mixture of both.  |

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|    |  |           | new tab and some a new page                                    |   |
| 18 | Ease of user experience in menus, allow hover over buttons (user 2) (user 3) | User test | 3 – The user should be able to see what they are clicking into | All buttons in menus should be hover over, less menu options so that there are less menus before getting to products. |
| 19 | Redundant buttons (1/3 off, user feedback) (user 3)                          | User test | 4 – There should not be redundancy on the website              | Remove the buttons when there is no offers of that type. Improve the feedback buttons and options.                    |