Umair Yaquoob
User Experience Design
Bsc Website Development
Year 3

User Experience Evaluation Report

Introduction

Digital Product:

User Experience is important in all aspects of today's living. Individuals and companies in the digital industry apply user experience strategy into their projects. "User experience is more important in our industry than ever before." (Harvey, 2013: online)

The group decided to make an app for Stagecoach Buses, which is unique as this app doesn't exist. The inspiration has come from current apps in the marketplace such as "First"; they have a really good app for their customers to track information quickly and accurately while their customers are planning or travelling on their services.

The overall outcome of this project is aimed at Stagecoach users to have an easy, accessible and usable app where they can track information on Stagecoach services quickly and accurately. Personal inspiration has come from Steve Krug. "How many opportunities do we have to dramatically improve people's lives just by doing our job a little better?"(Krug, 2014:175)

The following is what the group are planning to do, with what Krug is saying, by making a user-friendly app to enhance the audience lives. Fig 1 below shows a screen shot of First App:

Fig 1:

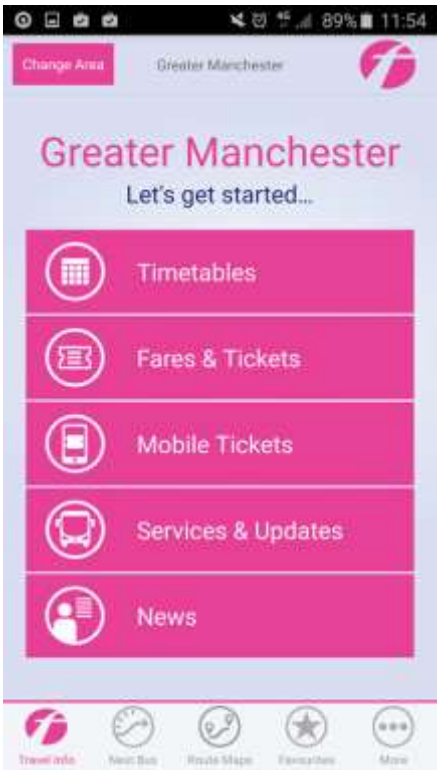

Fig 1: Screen shot of First app main section.

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Research

Competitor Analysis:

The first thing was done as a group was competitor analysis to compare currents apps that are similar to Stagecoach app. This stage required to look in detail of the design, layout and features of the competitor apps which were First, Trainline and London Travel. Group picked out the good and bad things about the apps so that they can take them on board. This enables them to think thoroughly about the features that their users' need and how it can be improved.

"A competitor assessment means looking at what your competitors do within their user experiences and then comparing and contrasting your current state or future-state vision against what they are doing."(Nichols and Chesnut, 2014:102)

Nichols and Chesnut point out above that competitor analysis is key process of UX project, it enables you to analysis and think about the user experiences of what your competitors are doing so that you can think about how you can improve on the current issues towards the user experiences.

Fig 2 shows screen shots of the group doing the competitor analysis:

Fig 2:

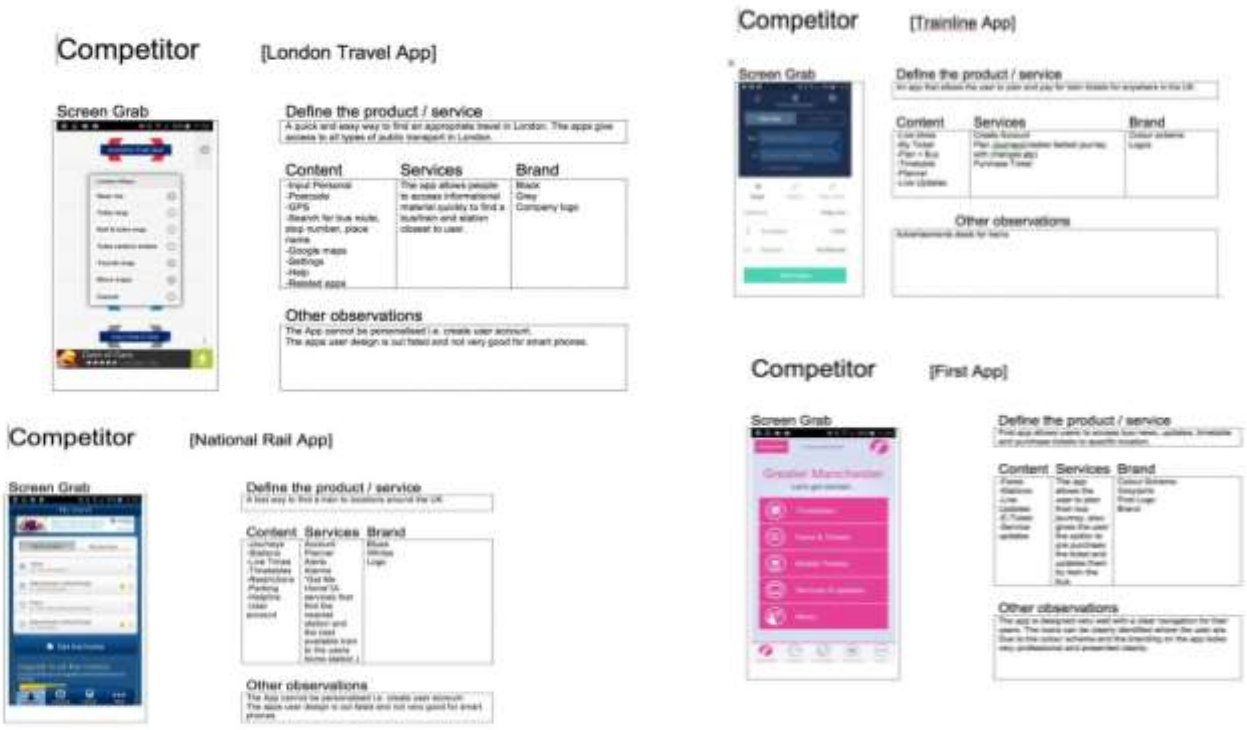

Fig 2: The evidence above shows as a group that they done an in-depth competitor analysis of travel apps that are similar to their Stagecoach app. They looked into the product, content, services and branding the competition provided. This enables them to look into what are good and bad things about the competitor apps so that they can make their Stagecoach app a better user experience.

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Personas:

Next stages of the research process were user personas. A persona is typical users that would use their app. The process will give them an insight of how users would use their app in their daily routines.

"Personas can deliver a gut check to many parts of your project- business requirements, visual design, or quality assurance- by providing insights into who your audience is and what their expectations and behaviours are". (Unger and Chandler, 2012:34)

This enables them to ask three real travel users what requirements they would like from their app to improve their lives. Also they got their users to think about the current apps they use and what they really dislike about the apps, so that they were aware of the issues which they can make improvements.

Fig 3 shows screen shots of the group work on user personas:

Fig 3:

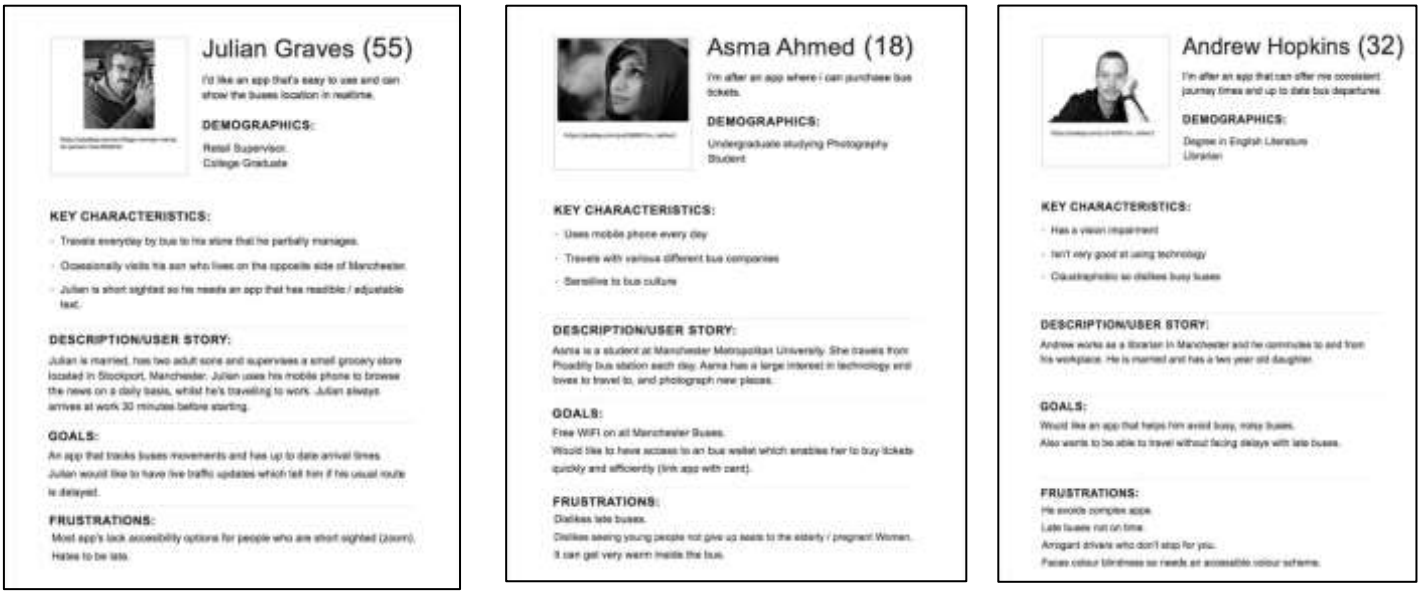


Fig 3: The evidence above shows the group doing real life personas for their Stagecoach app. The user personas show real life scenarios of the lifestyle of the users. The users shared with the group their demographics, key characteristics, story, goals and frustrations. This enable the group to do the next thing in the research stage which was user requirements based on the user personas. This allows them to keep focus on their target audience.

User Requirements:

The group had to be in the users shoes and come up with some requirements for the Stagecoach app. "In order to inform the design and the user, the usability engineer needs to understand not only the user requirements, but also business requirements and process." (Hartson and Pyla, 2012:123)

Moreover, this process allowed the group to look at the app in a different prospective instead of developers minds into user minds. The requirements would always allow them to stay on track with the development of the app as they are consistently returning to them. Overall, this allows them to gain accurate requirements that allow them to meet the project goals.

Fig 4 shows the user requirements they have gathered:

Fig 4:

Problem with current apps:

- Separate app for purchase
- Can't find the timetable for smaller stops
- No current app, website is also unresponsive
- Apps being too complicated and clunky
- Navigation button cause enter data to be deleted
- Colours not being user friendly

Opportunities and insight with competitor's apps:

- Detailed timetables
- Built in mobile ticketing
- Offline mode
- Shortcuts
- Accessibility features
- News Feed
- Bus Wallet
- Live tracking
- Journey Planner
- "Take me home" quick link
- Alarm
- Customer Support application
- Account system

Needs of the Customers:

- Journey Planner
- Timetables
- Quick links
- Ticket Purchase
- Accessibility

Needs of Stagecoach:

- Brand awareness
- Ticket sales
- More passengers
- To provide accurate information
- Get feedback

Trends:

- Branding (colour/logo)
- Streamline navigation
- Mobile payment

Fig 4: The user requirements above allowed the group to look into problems with current apps, insights with competitor apps, and needs of customers (Personas), needs of Stagecoach and future trends from research they have gathered on travel apps and where they are going in regards to mobile app development. Overall, this process made them think about their target audiences.

Storyboard:

Storyboard is based from the user personas, it allowed the group to develop a real life scenario of how a user will use Stagecoach app. "The UX storyboard allows for a quick visual communication and contains involved needs and emotions for every depicted interaction step." (Knobel, Schumann, Palleis and Schwarz, 2011:3)

Furthermore, this process allowed them to put a real persona to life of using the app. Overall outcome of the storyboard was that it allowed them to see the functionality of the app.

Fig 5 shows the group storyboard:

Fig 5:

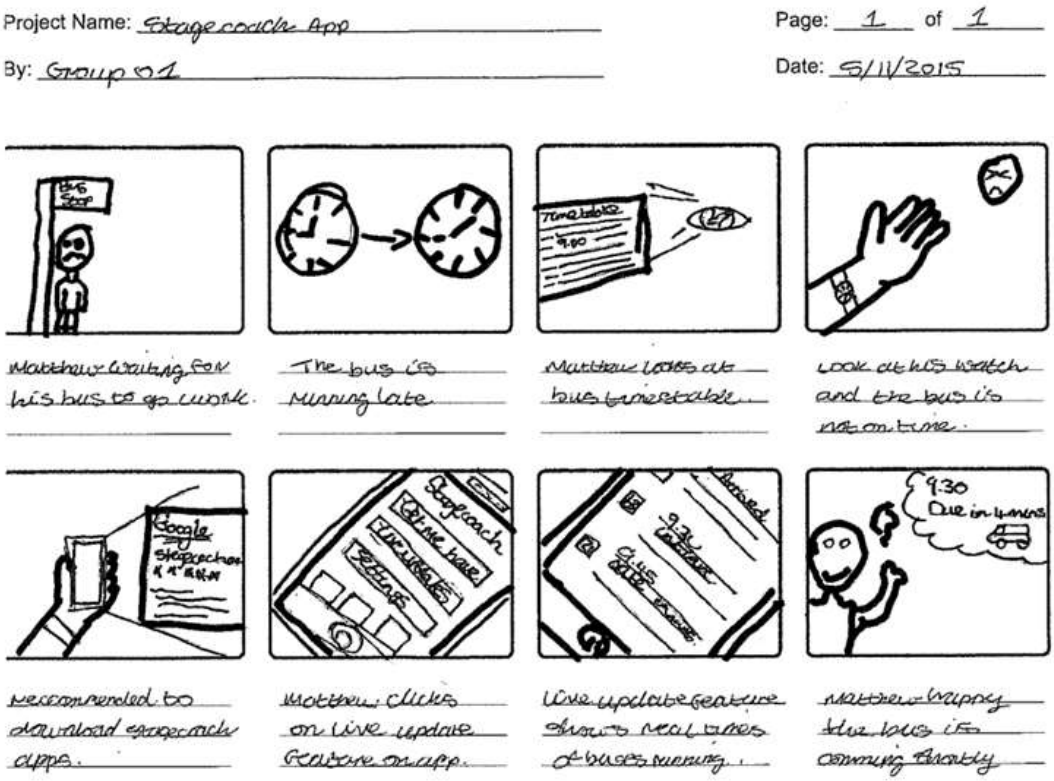


Fig 5: This shows one of the group personas to life. Andrew Hopkins is starting is day at the bus stop and he is running late for work. As usual the buses in Manchester are not on time. He looks at the timetable to see the timing of the bus; the bus should have been here as he looks at his watch to see the time. He was recommended to Stagecoach app, he downloads it and uses the main feature 'get me home'. He can see on app a live bus to his location, which it's on its way. He can get to work soon.

Research summary:

"In many people's eyes, the Research phase is key to creating an informed user experience."(UX Mastery, no date: online)

Overall this stage of the project allowed them to think critically about the app they are developing for their target audience. These enable those to see what users think about the app developing and getting feedback good and bad, so that they can get it right. Also it allowed them to look at user experience side of current apps and critic them in detail, the good and bad things to take on board. They were able to look at the functionality of their app through user personas and storyboarding and this allowed them to make decisions early on, the features and how they would work.

Draw

The next stage of the project was the drawing phase, which included individual wireframes of the home pages, group wireframes of the whole app and paper based testing.

Wireframes:

"Wireframes help identify the functionality of the page." (Caddick and Cable, 2011:163)

Wireframes allows an induvial to put down their ideas of what the product would look like. The reason why they do this step is that it helps to identify any issues with the layout of the design early on, which save a lot of time and money in the later stage of the development.

Fig 6 below shows individual wireframe of the home page.

Individual wireframe (Home page):

Fig 6:

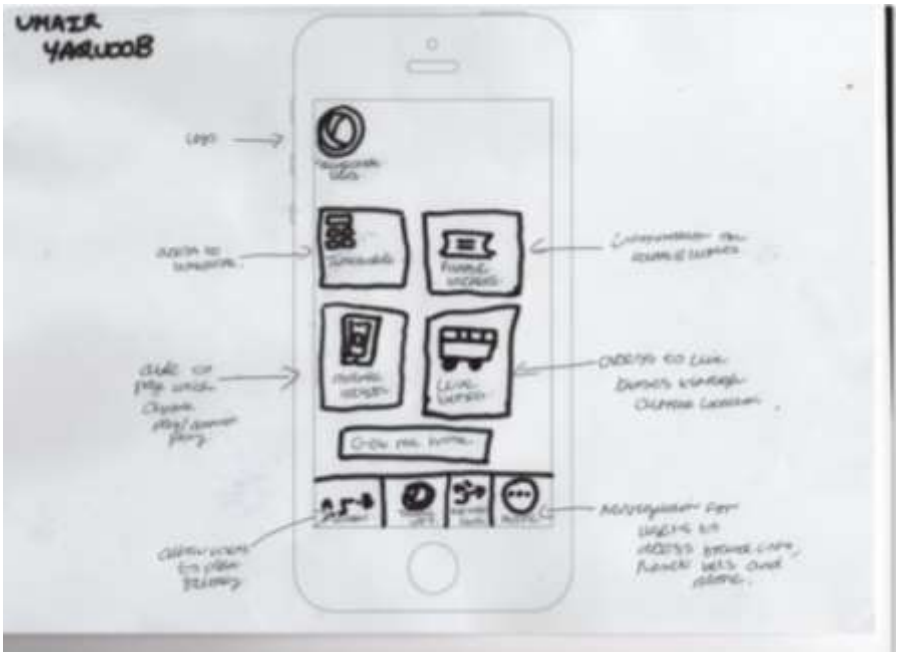


Fig 6: The wireframe design above is individual drawing for the home page. The concept behind the idea of the interface is clean, simple and sleek design. I went for creativity as well with the icons to represent each feature of the app with a grid layout. There is a consistent navigation on the bottom of the page to allow users to go onto other features like travel updates and settings.

Group Wireframe (Entire app):

After the individual wireframe, the whole team came together to do group wireframe of the entire app, everyone ideas from the individual app put together in the group contribution.

"Wireframes allow the entire project team to focus on the interface that is being created." (Caddick and Cable, 2011:160)

The benefit of group wireframing of the stagecoach app was useful as it allows the individuals within the team to open up to other ideas of the product which they never thought off.

Fig 7 below shows the group wireframes of the app:

Fig 7:

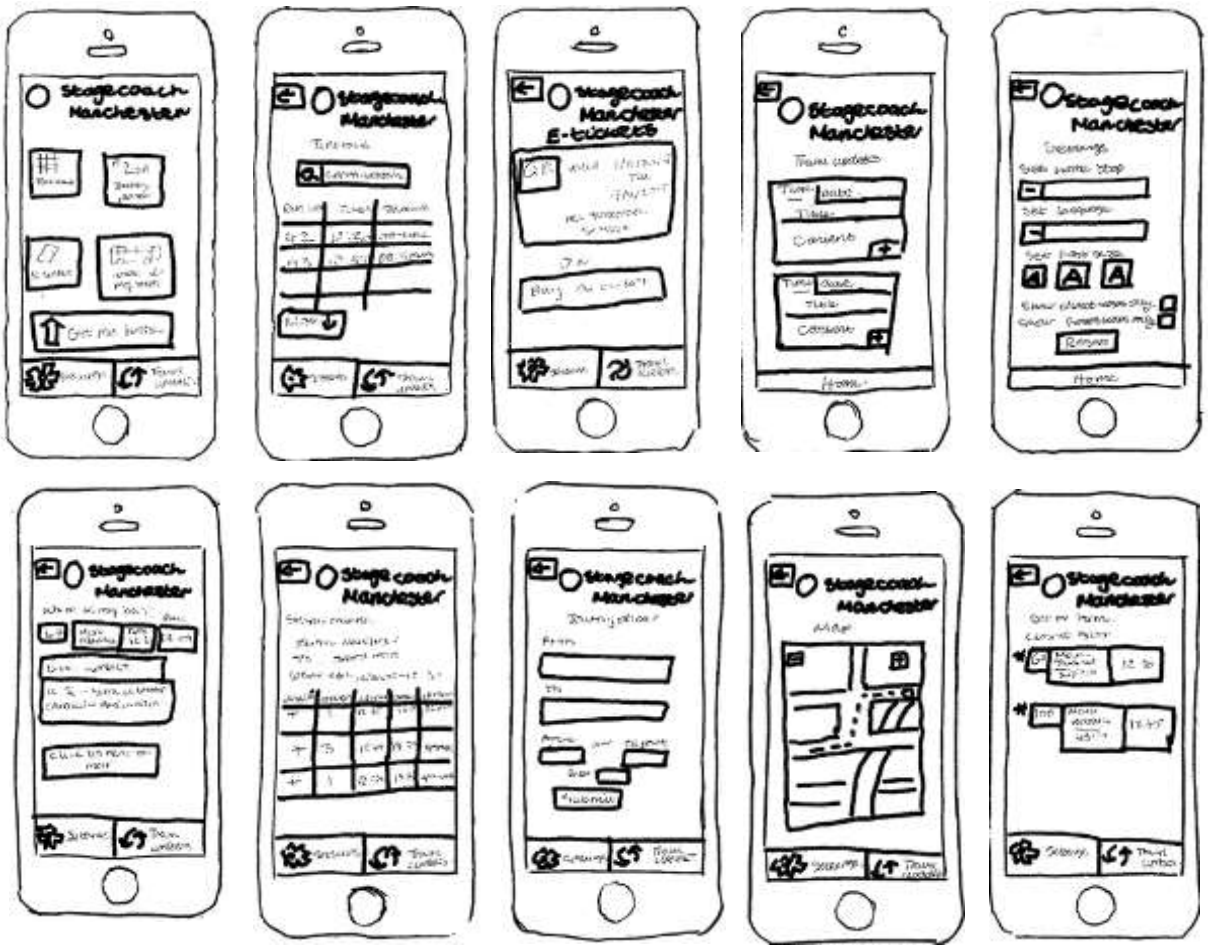


Fig 7: The illustration above shows the completed group wireframe of the Stagecoach app. The app consists of Home, Journey Planner, Timetables, E-tickets, Where is my bus? , Travel updates and Settings. During this process the group members had some differences about what features are essential for the app. The way they overcome these issues were to ask the public if that particular feature is required for the app. For example some members wanted an account feature and other members did not want that feature. From asking the public, majority of them said they don't need account feature, if they brought a ticket they would use the E-ticket feature.

Paper based testing:

The next process after low-fi wireframes were to get the wireframes tested. First of all as group they prepared tasks for the users to perform during the testing sessions. This enables them to think about how the users will perform tasks if the app was live.

Fig 8 shows the tasks that were created to ask the participants during the paper testing session:

Fig 8:

Questions for Paper testing

1. How would you find the timetable?
2. If you had to plan your route, what would you do?
3. How would you buy your ticket?
4. What would you do to track your bus?
5. If you want to get home, what would you do?
6. How do you find travel updates?
7. Find the settings?
8. On E-tickets page, how do you find your ticket?
9. How do you buy your tickets on E-ticket page?
10. How would you go back to previous page from the current page your on?
11. Can you find your bus details on where is my bus?
12. Can you find your chosen bus stream?
13. Find your bus on the map options?
14. Go back to home page on the app?
15. Can you find your bus to get to your home?
16. How much will it cost to get to your home from get me home page?
17. What time is your bus due?
18. Get back to home page from 'get me home!'?
19. Get to journey planner + enter you to and from bus route details?
20. Enter your destination into the field box?
21. Enter your arrival time?
22. Put in your depart time?
23. Enter your desire date?
24. Click submit button.

Fig 8: This is beneficial as a group they were thinking as users of what they would perform on their Stagecoach app.

Paper testing allows a team to see the functionality of the app and what users think of the app. "It teaches designers that their ideas are more important to the design process than the tools they use."(Treder, 2012: online)

The overall purpose of user testing is so that we can receive some feedback, if the app works, what is positive and negative about the app and improvements needed in design or functionality, which then can be implemented in later stages of the app design development through digital format like Axure, Photoshop and Invision.

Fig 9 shows the comments made from the participant during the paper based testing:

Fig 9:

Participant 1:

During the group user testing session, Kiran kindly did the first session of testing on Stagecoach app. The first thing we ask her to do is to find the timetable and whether it was straight forward to find. She said that the timetable area is clear and the search bar is useful for users to search specific bus routes they want. Also she likes the plus button which allows users to see further detail on their search criteria.

The comments she made on the E-ticket area is that she finds the downloadable ticket to the individuals phone very useful as some individuals may not have internet connection on the go, so the ticket would be somewhere safe.

In regards to a consistency Kiran thought the back button throughout the app was useful as it gave individuals the option to go back to the previous page. Unfortunately she brought up the inconsistency of the home button; she said that there should be an option of the home button throughout the app.

When asked to use the option to find a bus, Kiran was able to do this with ease and the information provided was relevant. She also found that the settings option gave her more option to personalise the app to her needs.

Even through the design was a low-fi wireframe the journey planner section was understood clearly, she loved the feature of her allowing to click on a dropdown menu to choose her destinations for her planned route. On the other hand she said that in app the user should be able to switch their options of from-to as well as to-from, this gives users flexibility and ease of use when planning their journey route.

Participant 2:

1. Alec quickly found timetable button.
2. Alec clicked on journey planner button.
3. Alec clicked on the e-ticket page.
4. Clicked on 'where is my bus' button.
5. Alec clicked on the get me home button.
6. Alec clicked on the bottom right button.
7. Found the settings with ease.
8. Just go into the e-ticket page and your tickets are displayed there.
9. Click on the buy a ticket button.
10. As previously done on other pages, Alec pressed the back arrow in the top left corner.
11. Alec can see his bus number, time of arrival and the price + live updates.
12. Alec doesn't understand this question.
13. Alec went on to the 'where is my bus' page then clicked on the map icon.
14. Alec has been able to go back to the home page from all pages so far.
15. Alec clicked on the get me home button, which displayed his nearest bus.
16. Alec found that it would cost £4.50 to get him home.
17. He found that his bus was due at 12:30pm.
18. There isn't a direct home button, but Alec was still able to use the back button to get him back to the homepage.
19. If it worked, Alec would have easily added his journeys details.
20. Same as above.
21. Same as above.
22. Same as above.
23. Same as above.

App lacks a direct home button, so that might be worth adding. Also Alec would like to have a GPS location button.

Fig 9: Both of the participants loved the design and functionality of the app as whole. They liked the features on the app and they both said it's clear and precise. The improvements they both said similar things that in some places there is inconsistency of the home button, they said the home button needs to be consistent throughout the app. Participant 2, Alec also said that they should be a GPS location button that allows users to track their current location and be able to track live buses that come to their current location.

Participant 1 on the other hand said that there should be an option for users to switch there route planning from-to as well as to-from which allows a better user experience as they don't have to re-type or select their destination as this feature will do it automatically for them.

This part of the process was very useful as they received great feedback from the users which allowed them to improve the app even further. This is crucial if the project was a real live project, as they are constantly thinking about the users all the time and developing an app for their needs. This allowed them to take improvements on board into the next stage of design development in Axure.

Axure Wireframe:

The next stage after paper wireframes were Axure versions of the app designs. I've taken on board the improvements to be made from the paper testing of wireframes into the Axure version by adding a consistent back and home button. Also the switch button allows users to change preferences when choosing their destinations for their journey planner.

"Axure enables designers to rapidly simulate highly engaging user experiences that can be reviewed and tested on target devices as static wireframes are transformed into dynamic prototype." (Schwartz and Srail, 2014:28)

The main purpose of Axure allows individuals to bring the paper wireframes to life, with a clickable wireframe to allow the users to have a feel of the design and flow of the app, at an early stage. Axure enables individuals to add a better visual creativity of their app designs. The wireframe has been uploaded to Axshare to allow peers, family and friends to test the designs.

Can be accessed at: http://zzxfhv.axshare.com/#p=home

Fig 10 shows the Axure wireframes of app:

Fig 10:

Fig 10: With the Axure Wireframe, kept it simple and followed the paper group wireframes, but added individual twist into the design. As you can it's a step up from the paper version wireframes. On the creativity side of things, added familiar icons with labels for users to recognise what each button represent, so that straightaway they can easily navigate around the app without any issues. The navigation elements are in the same position and consistent throughout the app. This is so users can memorise the actions they have performed. This stage will follow through with user testing, so that Umair gets feedback on this version of the wireframes.

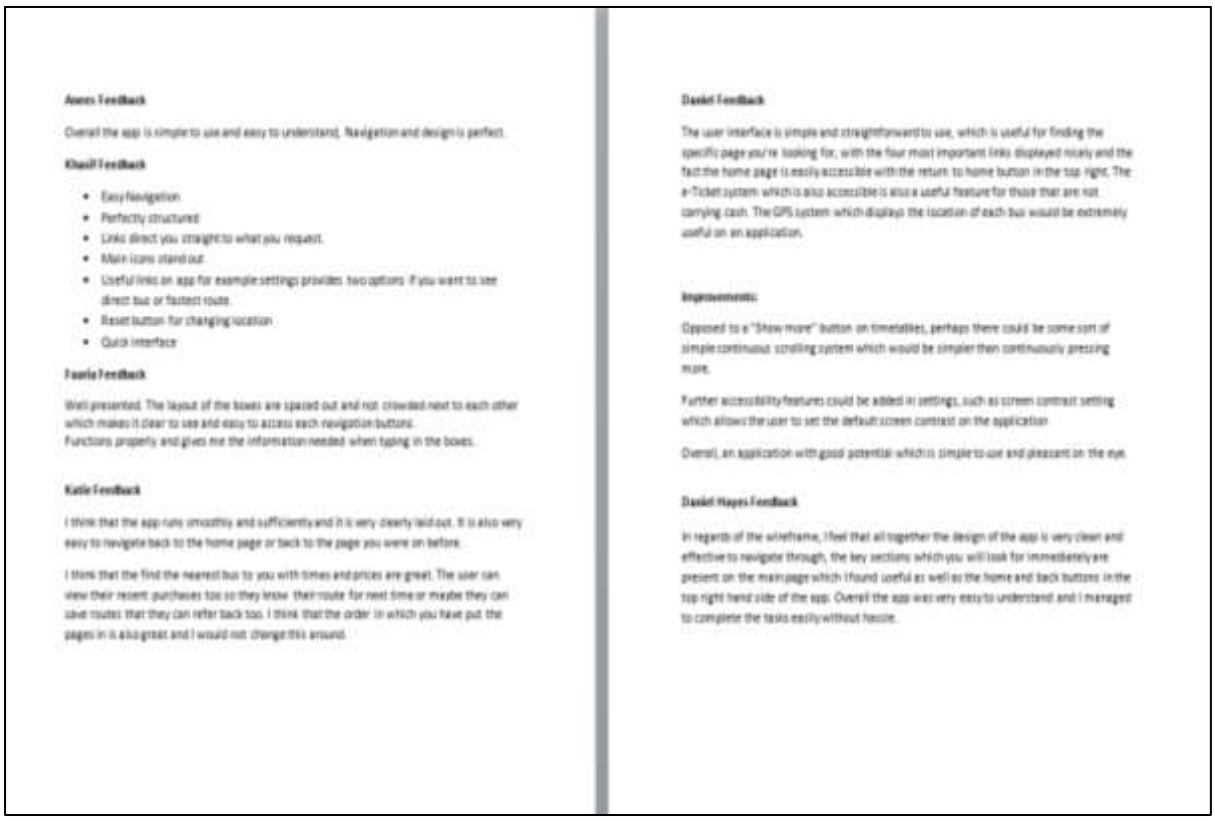
Axure Wireframe Test:

This process was similar to the paper testing sessions. Seven users tested the Axure Wireframe design of the Stagecoach app. The same tasks used in the paper testing session, which you can see in fig 8. 7 out 7 users said that the design was perfectly structed, easy to navigate and simple to use. They all love the clear labels and icons to represent each feature throughout the app. Also they liked the accessibility of the app on how easy it is to get to one page to another.

One of the points that Katie brought up was that users should have an option to view their purchases or routes they used previously so that if they go on the same route again they don't need to go through the whole process of finding the route. Daniel pointed out that instead of having a more button in the timetable to show more details for timetable information it's simpler to just have a simple continuous scrolling system. Also he pointed out that in regards to accessibility options there should be feature to allow users to change screen contrast. All the points made for improvements will be implemented in the design stage in Photoshop.

Fig 11 shows evidence of notes taken during testing session.

Fig 11:



Axecs Feedback

Overall the app is simple to use and easy to understand, Navigation and design is perfect.

Khalil Feedback

- Easy Navigation
- Perfectly structured
- Links direct you straight to what you request.
- Main icons stand out
- Useful links on app for example settings provides two options if you want to see direct bus or fastest route.
- Reset button for changing location
- Quick interface

Faaria Feedback

Well presented. The layout of the boxes are spaced out and not crowded next to each other which makes it clear to see and easy to access each navigation buttons.
Functions properly and gives me the information needed when typing in the boxes.

Katie Feedback

I think that the app runs smoothly and sufficiently and it is very clearly laid out. It is also very easy to navigate back to the home page or back to the page you were on before.

I think that the find the nearest bus to you with times and prices are great. The user can view their recent purchases too so they know their route for next time or maybe they can save routes that they can refer back too. I think that the order in which you have put the pages in is also great and I would not change this around.

Daniel Feedback

The user interface is simple and straightforward to use, which is useful for finding the specific page you're looking for, with the four most important links displayed nicely and the fact the home page is easily accessible with the return to home button in the top right. The e-Ticket system which is also accessible is also a useful feature for those that are not carrying cash. The GPS system which displays the location of each bus would be extremely useful on an application.

Improvements:

Opposed to a "Show more" button on timetables, perhaps there could be some sort of simple continuous scrolling system which would be simpler then continuously pressing more.

Further accessibility features could be added in settings, such as screen contrast setting which allows the user to set the default screen contrast on the application

Overall, an application with good potential which is simple to use and pleasant on the eye.

Daniel Hayes Feedback

In regards of the wireframe, I feel that all together the design of the app is very clean and effective to navigate through, the key sections which you will look for immediately are present on the main page which I found useful as well as the home and back buttons in the top right hand side of the app. Overall the app was very easy to understand and I managed to complete the tasks easily without hassle.

Fig 11: This is evidence from the user testing session of the feedback received on the Axure Wireframes of the Stagecoach app.

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Design

Photoshop design:

"You can go beyond the limits of creativity."(Naldz Graphics, no date: online)

After the Axure testing was done by users, it was time to make the improvements in the Photoshop designs. Everything has been taken on board all good and bad points from the user's feedback into this stage of the design process. Photoshop allows an individual to be creative and bring their product to life with amazing visual elements of what the end product would look like.

Fig 12 shows evidence of the app designed in Photoshop.

Fig 12:

Fig 12: As you can see its better improvement design from the Axure wireframes**.** The improvement features added are save purchase ticket to phone **(E-ticket),** Scroll **(Timetable),** Previous Journeys **(Journey Planner)**, Voice recognition **(Journey Planner, Where is my bus? Get Me Home and Travel Updates)** and colour contrast for accessibility.

Invision Prototype:

InVision Apple Prototype URL - https://invis.io/FT568CHX3

InVision Android Prototype URL - https://invis.io/HE56EVVVF

The next process was to create an InVision prototype of the Stagecoach app. This platform allowed uploading the Photoshop designs into a live clickable app, it allowed pushing the designs through onto an iphone and android template, this enables to see how the app would look and function in different mobile devices.

“Just like you can do with desktop versions, you can create hotspot links for all of your screens.” (Wells, 2014: online)

This process uses mobile gesture and transitions to link pages, to allow the users to have a proper mobile user experience for example using tapping throughout the app. Once this process was completed, another user testing session was taken in place.

InVision Prototype Test:

This process was similar to the paper testing sessions. The same tasks used in the paper testing session, which you can see in fig 8**.** Eight users participated in the Invision prototype testing. 8 out 8 users said they loved the look, feel and design of the whole app. They like other elements of app such as colour scheme used to match brand identity and one of the main features that stand out of them is the voice regonistion, to enable users to control their search request with their voices.

Here are few quotes from what users had to say about the Invision prototype:

"The whole app concept is current, sleek and fresh."- Charlotte

"Your app is so good! I would definitely purchase this app, if it was launched. " – Mubs

"The layout and colours are good, the features such as voice search and where my bus is excellent." - Misbah

"This app is so easy to navigate and you have all the features that are needed in a travel app."- Anees

"The app looks spot on and it's easily accessible and pleasing on the eye." – Daniel

Fig 13: This picture is showing one of the users doing testing of InVision prototype.

Evaluation:

From the start to the end, I have thoroughly enjoyed being part of the whole process of this project, how as a group and individual we were able to try different techniques and tools in the UX Design, it gave a feel of how people in the UX world go about creating and designing an app or website before actually launching the product.

A lot of work goes into launching a product behind the scenes, enjoyed the whole project from research all the way to final design of the Stagecoach app. This project gave a clear understanding of how users think and what they would like in a product. Throughout the whole testing stages I've taken on board the feedback from users to improve the app design. Overall happy with the end product, the users said they would love to use this app if it was launched.

Word Count: 1650 (Excluding Illustrations and text boxes)

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Icons used in Wireframes from Flaticon: http://www.flaticon.com/

Stagecoach logo used in Visual Wireframes: http://www.tabletalkmedia.co.uk/?attachment_id=5893

Map used in Visual Wireframes: http://www.tfgm.com/route-explorer/Pages/rx/index.html