

USABILITY REPORT

BUZZWORD

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1.1 Introduction

This document outlines the process we took in creating and executing a usability testing plan for our Restaurant Ordering Support System (ROSS). Said testing was carried out with the aim of identifying any flaws in our design and to gather an idea of user performance with the system.

The system is split into 3 parts. There is the app the waiter will use to take the customer's' order through, the kitchen display for relaying the orders, and the order update system providing an up-to-date status to the customer on their order. The app will be installed on a tablet available for the waiter to use at any table. The app will allow them to input an order and request any necessary modifications e.g. those caused by dietary restrictions. The kitchen display will present a clear summary of the order to the kitchen and will allow the kitchen staff to interact by providing an estimate on the time it will take for the order to be complete. The order update system will provide the customer with a summary of their order alongside its current status, as given by the kitchen staff.

This system is designed to replace the current ordering system the client has in place and will be installed in all their locations once complete.

1.2 Test Goals

The objective is to test the usability of our ordering system and whether it is preferable to the standard ordering system currently in place at the restaurants. We need to know if the essential actions of the system can be carried out easily by various users if the system is to be successful.

We also aim to prove the 3 following hypotheses:

A mobile application is easy for a waiter to place orders through.

A kitchen display is easy for staff to monitor and interact with.

Providing the customer with constant feedback on their order leaves them feeling more satisfied.

If all three hypotheses are proven true, then we believe we have created an ideal system to be placed into use in all of our clients restaurants.

1.3 Participants

We expect to have between six and eight participants in our study. The subjects should have a range in both age and computer literacy. We are looking for varied participants as there is no one type of customer that may enter the client's restaurants. Customers may come from any background, therefore our system must be easily usable by all.

The participants will be asked to complete one questionnaire before and another questionnaire after they have attempted to perform multiple tasks using the system we have created. The participants will not have any prior knowledge as to the workings of the system other than a quick briefing before carrying out the tests, and will have an investigator present to answer any questions they may have, alongside providing any potential assistance required. All subjects will be required to sign a consent form prior to their participation in this study.

1.4 Experiment Design

Participants will be asked to complete a series of tasks on each part of the system. These tasks are representative of what we believe will be some of the most common actions taken by users once the system has been fully implemented. These ideas were extracted from our requirements document to help us identify which features to test most strenuously.

1.4.1 Tasks (Wait Staff App)

- 1) Select your table number.
- 2) Add 1 'Stuffed Mushrooms' to the order.
- 3) Add 1 'Korma' to the order.
- 4) Add 1 'Milkshake' to the order with ammendment 'Chocolate Milkshake'.
- 5) Go to checkout.
- 6) Place the order.

1.4.2 Tasks (Kitchen Display)

- 7) Check status of table 2.
- 8) Complete the order for table 9.

1.4.3 Tasks (Customer Feedback Display)

- 9) Check order status.

1.5 Findings

There was 6 participants in the study.

1.5.1 Pre-questionnaire Results

1)

How often do you visit a restaurant?	
Daily	0
Few times a week	1
Once a week	3
Once a month	2
Never	0

2)

Have you ever had difficulty placing an order in a resaurant?	
Yes	1
No	5

3) What common issues have you come across in restaurants?

Slow service.

Incorrect orders.

Bad service.

Rude staff.

Noisy.

Long waits between items.

4)

Have you ever ordered food online through a website or an app?	
Yes	5
No	1

5)

If so, did you enjoy the service?	
Yes	3
Mostly	1
No	2

6) What didn't you enjoy about the experience?

Long wait.

Slow delivery.

Don't know if order is right till it arrives.

Lack of information.

Inaccurate estimated times.

Got order wrong.

7) Do you prefer making purchases face-to-face or online?

Both are good.

Online is easier.

Face to face so I can ask questions.

Depends on the situation.

Face to face, more personal.

Online, I'm lazy.

1.5.2 Test Results

1) Select your table number.

All participants managed this task without issue.

2) Add 1 'Stuffed Mushrooms' to the order.

No participants struggled with this task, a couple did not go straight to the correct section of the menu but were eventually able to find the item without requiring assistance.

3) Add 1 'Korma' to the order.

All participants managed this task without issue.

4) Add 1 'Milkshake' to the order with amendment 'Chocolate Milkshake'.

A couple participants were unsure on how to make amendments to an item and hesitated to add the item to the order. They proceeded correctly after asking the investigator for confirmation that their planned actions were correct.

5) Go to checkout.

All participants managed this task without issue.

6) Place the order.

A few of the participants proceeded to enter their own name instead of the hypothetical customer's name.

7) Check status of table 2.

All participants identified the correct table quickly and easily.

8) Complete the order for table 9.

There was some hesitation from a couple participants but overall no errors.

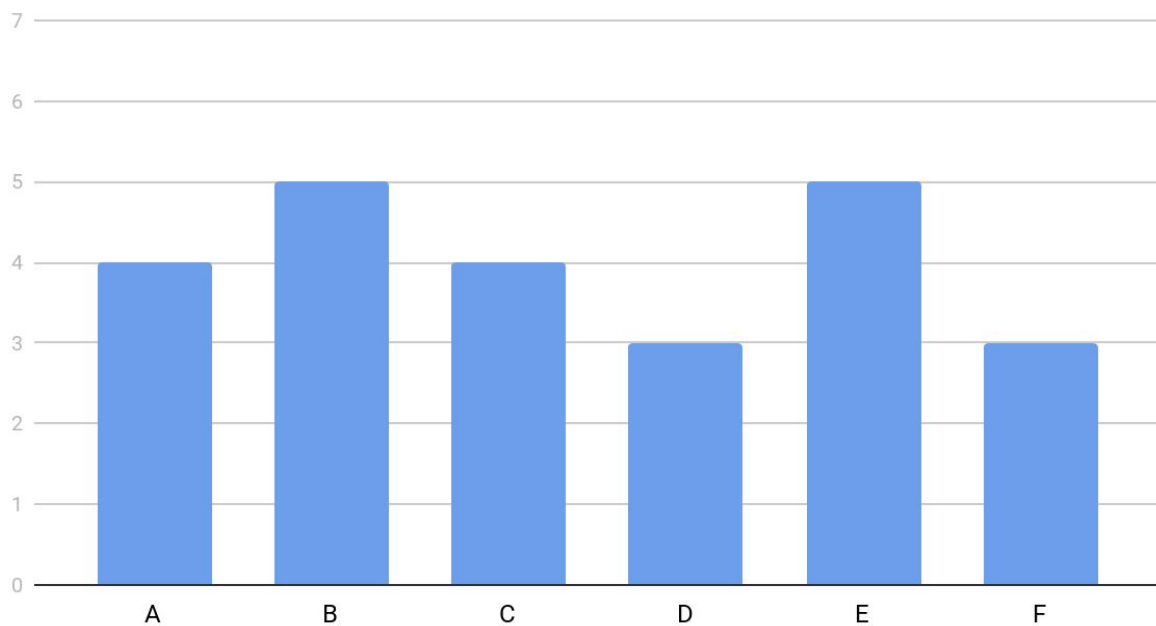
9) Check order status.

There was confusion amongst those who incorrectly entered details on how to correct their mistake.

1.5.3 Post-questionnaire Results

1)

Did you enjoy your experience?



2)

Did you find the system intuitive to use i.e. did all items appear under the correct headings/menus you expected them to?

Extremely intuitive	3
Very intuitive	3
Somewhat intuitive	0
Not very intuitive	0
Not at all intuitive	0

3)

Did you find yourself relying on the investigator for help often?

Very often	0
Quite often	0
Occasionally	2
Rarely	1
Never	3

4)

How satisfied are you with the look of the system?

Extremely satisfied	0
Very satisfied	1
Somewhat satisfied	3
Not very satisfied	1
Not at all satisfied	1

5)

Would you like to use a system like this one in a restaurant?	
Yes	2
Maybe, with improvements	3
No	1

6) Do you have any thoughts on how to improve the system?

Kitchen part could do with more explanation.

Could look a lot prettier.

I like that it's simple but could do with some more features.

Customer app doesn't tell them much.

More choice in the menu would be nice.

Menu could look nicer.

1.6 Conclusions

Visuals

There was a clear consensus on the visuals of our system that showed an appreciation for the clean and simple design even if it was a little plain. A lot of positive feedback was received over how easy it was to identify components and their functions.

There has been large improvement on this front compared to our original testing. While criticism remains over the lack of wow factor, it has shifted from the opinion that the design was massively hindering the system to the idea that a fresh lick of paint would be a nice quality of life improvement for the users. Moving forward improvements to the design can certainly be made. With all key functionality, implemented we can begin to focus on aspects such as this that would increase our users enjoyment.

Features

None of the participants felt there was any key feature missing that rendered the system useless. Many had ideas for smaller features to add on that could improve the user experience such as being able to summon a member of staff through the customer app.

In our first round of testing in stage 1, we received heavy criticism for the lack of features displayed in our initial mock-ups. We had a solid base idea but lacked some key components to make it into a successful system. The results of the most recent tests show we have managed to successfully develop our idea into a complete and usable system. We have delivered on some of the promise we initially showed, however we could've produced more.

Navigation

One of our main aims for the system was for all components to be easy to navigate. We have without a doubt achieved this. It was the single biggest point of praise from all test participants. The lack of clutter on screen prevented participants from getting distracted from their goals.

Initially we had mixed results with our ease of navigation. While the waiting and the customer components garnered plenty of positive feedback, the kitchen component was met with overwhelming discontent. This is no longer the case. The kitchen is now inline with the rest of the system and satisfies our users needs.

1.7 Design

1.7.1 Wait Staff App

Starters

Meats

Drinks

Deserts

Welcome

Please select a table to start

Table No:

Select Table

No. of Items: 0

Total: £0

Checkout

Starters

Meats

Drinks

Deserts

Item ID	Display Name	Description	Price	
41	Highlander	Aberdeen Angus burger topped with haggis and whisky sauce. Served with side of home-style chips and salad (with dressing)	£11.80	<div>Add to Order</div>
42	Balmoral	Venison steak with Bleu cheese and crispy shallots. Served with side of home-style chips, salad (with dressing), and cranberry sauce	£14.75	<div>Add to Order</div>
43	Americano	Two quarter pounders accompanied by cheese, grilled onion, pickles, tomato, lettuce topped with choice of relish or mustard. Served with fries	£14.75	<div>Add to Order</div>
44	Jalisco	A hot, rich curry made with green chilies, peppers, onion and tomatoes. Served with pilau rice, naan, and poppadom	£12.00	<div>Add to Order</div>
45	Korma	A mild but flavorful dish made with ground almonds, coconut and thick cream. Served with pilau rice, naan, and poppadom	£12.00	<div>Add to Order</div>
46	Tikka Masala	Rich and creamy sauce with aromatic chicken pieces. Served with pilau rice, naan, and poppadom	£12.00	<div>Add to Order</div>
47	Fish and Chips	Fresh beer-battered north sea cod on a bed of chunky chips, served with side of tartare sauce	£8.50	<div>Add to Order</div>
48	Beef Wellington	Tenderloin beef coated in pâté de foie gras and duxelles, baked in puff pastry. Accompanied by rich gravy and roast potatoes	£13.10	<div>Add to Order</div>

No. of Items: 1

Total: £3.20

Checkout

Order for Table 2

1 Stuffed mushrooms £3.20
1 Korma £12.00
1 Milkshake £1.80

Additional Requests
Stuffed mushrooms
Korma
Milkshake Chocolate milkshake

Total: £17.00

Go Back

Place Order

1.7.2 Kitchen Display

Orders Appear Here:

Times
Times : 20:00 10:00
add 10mins Complete
Name and Number
Name: Olli Number: 9
Drinks
1 X Bottomless Glass - Pepsi
Starters
Main
4 X Jalfrazi - No onion please 1 X Beef Wellington -
Desserts
1 X Banana Split -

Times
Times :
add 10mins Complete
Name and Number
Name: Mian gay Number: 2
Drinks
Starters
Main
1 X Americano - No pickle?
Desserts
1 X Cheese board -

Times
Times : 19:00 5:00
add 10mins Complete
Name and Number
Name: Students Number: 5
Drinks
4 X Bottomless Glass - 2 Pepsi, 2 Ice Tea
Starters
Main
4 X Fish and Chips -
Desserts

1.7.3 Customer Feedback Display

This page allows you to check the status of any current orders.

You will have selected a 'keyword' most likely based on your name. Enter this in the keyword section, and your table number in the table number section.

For example, 'John Smith at Table 13' would become 'Smith' in box 1, and '13' in box 2.

Enter Your Keyword in the Box:

Enter your Order Number in the Box:

Check Status of Order

OrderNumber : 5
OrderName : Students

Amount : 1
Prawn Cocktail
£ : 3.20

Description :
King prawns served with 5 apiece cocktail sauce

Amount : 4
Bottomless Glass
£ : 2.00

Description :
Unlimited refills of Pepsi, 7 Up, Schweppes, and
Ira Iru

Amount : 4
Beer battered Cod and Chips
£ : 8.50

Description :
Fresh beer battered north sea cod on a bed of
chunky chips, served with side of tartare sauce

The total price is : £ 13.7

Check again

1.8 Consent Form

Consent Form For Usability Experiments:

Buzzword Restaurant Ordering System

Team Buzzword

Consent to Act as a Subject in an Experimental Study

Principal Investigator: Kerr Brydon, Mamta Sofat, Craig Duffy, Wai Teng Chong, Michael Steventon, Tommy Lamb, Alistair Nibloe

Description: The purpose of this study is to study whether our system is ready to be deployed into a real world setting and to identify any possible areas of improvement. We will test on a fully functional and online version of the system for this study.

There are minimal risks for you to participate in this study. All personal information will be kept confidential in a secure filing cabinet or in password-protected computer directories in accordance with the provisions of the Data Protection Act 1998.

You are free to decline to participate in this study. Should you decide to participate, you are free to end your participation at any time. You are also free to withdraw 7 days after the study (please email krb1@hw.ac.uk). If you withdraw your data will be removed and destroyed.

Participation voluntary consent: I certify that I have read the preceding and that I understand its contents. Any questions I have pertaining to the research have been answered satisfactorily by the team. My signature below means that I have freely agreed to participate in this study.

Date
Initials

Subject Signature

Inv.

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Investigator's certification: I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature.

Date

Investigator Signature

1.9 Pre-questionnaire

1. How often do you visit a restaurant?
 - ☐ Daily
 - ☐ Few times a week
 - ☐ Once a week
 - ☐ Once a month
 - ☐ Never
2. Have you ever had difficulty placing an order in a restaurant?
 - ☐ Yes
 - ☐ No
3. What common issues have you come across in restaurants?
4. Have you ever ordered food online through a website or an app?
 - ☐ Yes
 - ☐ No
5. If so, did you enjoy the service?
 - ☐ Yes
 - ☐ Mostly
 - ☐ No
6. What didn't you enjoy about the experience?
7. Do you prefer making purchases face-to-face or online?

1.10 Post-questionnaire

1. Did you enjoy your experience?

1	2	3	4	5	6	7
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Not enjoyable

Very enjoyable

2. Did you find the system intuitive to use i.e. did all items appear under the correct headings/menus you expected them to?

- ☐ Extremely intuitive
- ☐ Very intuitive
- ☐ Somewhat intuitive
- ☐ Not very intuitive
- ☐ Not at all intuitive

3. Did you find yourself relying on the investigator for help often?

- ☐ Very often
- ☐ Quite often
- ☐ Occasionally
- ☐ Rarely
- ☐ Never

4. How satisfied are you with the look of the system?

- ☐ Extremely satisfied
- ☐ Very satisfied
- ☐ Somewhat satisfied
- ☐ Not very satisfied
- ☐ Not at all satisfied

5. Would you like to use a system like this one in a restaurant?

- ☐ Yes
- ☐ Maybe, with improvements
- ☐ No

6. Do you have any thoughts on how to improve the system?