Assignment 1 – Usability Evaluation and User Support

Course: IT 215 – Human Computer Interaction

Target CLO(s): CLO 1.1 (K1), CLO 2.3 (S3)

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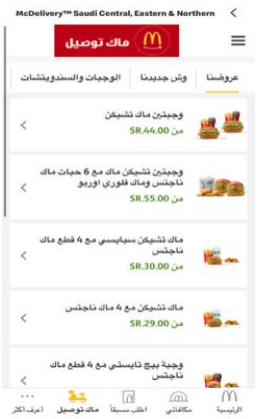
Part A - Interface Analysis (CLO 1.1)

1. Interactive System Selected
In usability testing, I focused on McDelivery KSA since it is the official delivery application of McDonald's.
used within Saudi Arabia. Users can view meals within the app, configure their order, and get
their food delivered at the address they want. I chose this application because it is highly in use and
represents real day-to-day digital interaction and therefore should be suited to usability analysis based on
HCI principles.
2. Description of Interface & Identified Usability Issues
On the McDelivery screen, there's a bottom navigation menu, product categories, and promotions.
banners, and an integrated shopping cart. Although the structure seems fairly simple, the
The real process of interaction is full of usability issues that contribute to a negative user experience.
experience.
Problem 1: Inconsistent Visual Design
• Violated HCI Principle: Consistency & Standards
When navigating, there are several unrelated colors used for key action buttons. For instance:
• Red-colored button to start the order
• The color of the "Add to Cart" button is yellow.
Blue is choosing a restaurant.
This inconsistency forces the user to stop and think, rather than instinctively making the connection that
A CTA is an action button, and users use visual patterns; when those patterns break, mental effort increases.
A consistent color scheme would let users more easily identify the main action at a glance without
hesitation.



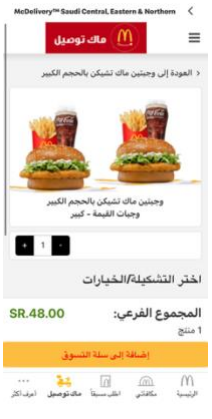


Figure 1 + Figure 2 = Color difference between “Start Order” and “Add to Cart”

Problem 2: System responds slowly and provides little or no feedback.
• Violated HCI Principle: Visibility of System Status / Feedback
Transitions between the screens are rather slow, and there are several that take over three seconds.
Worse, the app shows no loading animation or, for that matter, any kind of progress indicator during that period. As
The result is that the user thinks that the app has hung, and keeps on tapping the button
It causes frustration and may further lead to accidentally duplicated actions or orders..

Figure 3. Delay in screen transition without a loading indicator

Issue 3: Poor Information Organization and Visual Clutter
• Violated HCI Principle: Reduce Cognitive Load
Some of the screens are displaying too much information at once, which includes:
Order history + delivery address, + current order information.
All of these are displayed on one busy screen, without any visual hierarchy. The user's
Working memory is overloaded because they have to sift through information.
The data needs to be collated, then processed and interpreted, all manually, which makes it harder to navigate and slows down decision-making processes.

Figure 4+5: Crowded layout with mixed elements on one screen.

3. Impact of Human Cognitive & Physical Limitations

• Cognitive limitations:

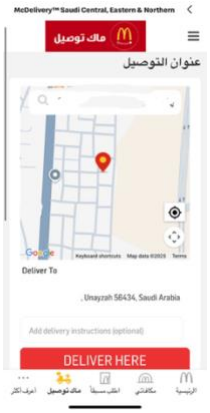
Human beings can only process so much information at a time. Congested screens force users to memorize too many details and switch their focus very often. The inconsistent

The colors will, too, distract a user to question their decisions.

Besides, the more noticeable problem in this application is its mixed-language interface.

elements. Some of the buttons and text labels are in English, whereas the rest of the interface is

That depends on the definition according to Arabic.



Such inconsistency creates a break in the user's mental flow. Users who expect the Suddenly, the interface is all in Arabic; the necessity of switching mentally into other languages increases.

Cognitive load: When the brain has to switch between the two languages in performing every little task, it slows down.

Decision-making and leaves users in doubt whether their action is appropriate or not.

Example: a user reads the menu in Arabic, but the button confirming the order appears in This forces the user to stop and make sense of the text in English before continuing.

This, for the Arabic speakers or those who have poor proficiency in English, will lead to:

• Hesitation,

• Bewilderment,

• Slower pace of completion.

Maintaining consistency in the language of the interface reduces the mental effort required; hence, the user can remain

They were on-task, that is ordering food, instead of decoding language.

• Physical limitations:
Some of the buttons are small and rather closely placed; it's hard to tap them precisely. The problem is that this could be very bothersome for users with hand-movement limitations or those having big fingers. Text readability
Also, reading becomes poor because of low color contrast due to the size difference in fonts.
These collectively reduce efficiency and increase user fatigue.

Part B - Usability Testing (CLO 1.1 & CLO 2.3)

1. Test Plan
In testing the McDelivery app, I conducted a usability test focused on two realistic tasks an A typical customer would perform in food ordering.
The objectives were to:
• How do new users take to using the application so effortlessly?
• Identify areas of confusion or hesitation,
• Track errors and frustrations during the interaction.

Tested User Tasks
1. Go to a restaurant and order some new food from scratch.
2. Update an active order to remove an item from a shopping cart.

Metrics Used
• How long each task will take.
• Number of errors or wrong actions performed - error count
• Satisfaction (1=very frustrating, 5=very satisfied)

2. Test Execution
The testing was conducted with two participants who frequently used other food delivery applications. Among them are
Hungerstation and Jahez but had never used McDelivery before. This helped to ensure that their
These were questions about the design of this app and not a general lack of experience with ordering food apps.
I observed what they did, remarks made, facial expressions, and moments of hesitation, if any, during the test.
moments.
~Usability testing flowchart:

Step	Description	Outcome
1	Start Test	Users ready and briefed
2	Task 1: Place Order	Measure completion time and errors
3	Task 2: Modify Order	Test editing and navigation
4	Collect Feedback	Get satisfaction ratings (1-5 scale)
5	End Test	Session completed

The table above shows the steps followed during usability testing, where two main tasks were performed while measuring time, errors, and satisfaction levels for each user

3. Findings and Results

Task 1 - Placing the Order
• User 1: 4 minutes; did not understand which button to press due to the inconsistency. button colors.
• User 2: It took 5 minutes; during slow transitions, the user repeatedly tapped the button, believing
The application froze.

Task 2 - Order Editing
• User 1: Couldn't find the edit/remove option at first and almost confirmed wrong Order.
• User 2: Could perform the task but was uncertain since no confirmation message appeared.
that the edit was saved.

General User Feedback:
• The app is slow.
• Buttons and actions are not predictable.
• The action may or may not have taken place.
Users' overall satisfaction score: 2/5. Both users said they prefer other food delivery apps. These are the reasons they are faster, clearer, and easier to use.

Part C – Methods of Assessment

I used two different methods to evaluate the McDelivery app:

1. Heuristic Evaluation
When I checked the app against standard design rules, I found several problems:

· Buttons have different colors with no clear pattern
· No loading indicators when moving between screens
· The layout feels messy and unorganized

2. Cognitive Walkthrough
I also pretended to be a new user and discovered:
· First-time users get confused about what button to press next
· The slow transitions between screens make people think the app is frozen
· Important features are hard to find

What Both Methods Agreed On
Interestingly, both evaluation methods pointed to the same main issues:
· The app looks inconsistent
· It runs too slowly
· The layout is poorly organized

Quick Design Improvements
Based on these findings, here are two simple fixes that could help immediately:
1. Use Consistent Button Colors
  · Make all main action buttons the same color (like orange)
  · This would help users recognize what to click next
2. Add Loading Indicators
  · Show a spinning animation or "Please wait" message between screens
  · This would let users know the app is still working

Expected Results
These small changes could lead to:

· Faster task completion
· Fewer user errors
· Higher satisfaction ratings
· Less frustration overall
Sometimes the smallest adjustments can make the biggest difference in how an app feels to use.

Part D: Recommendations for User Support

1. Interactive Tooltips for Clear Guidance

· Add helpful tooltips when users hover over buttons.
· Example: Show "Tap here to review your order" over the cart icon.
· Why it helps: Reduces confusion and wrong clicks, especially with the current inconsistent buttons.

2. Quick Video Tutorial for New Users
· Show a 30-second video when the app is first opened.
· Example: Demonstrate how to place and modify an order. · Why it helps: Prevents errors by guiding users visually and builds confidence from the start.

Expected Improvements:

· Fewer navigation mistakes
· Faster learning curve
· Higher user satisfaction
· Smother overall experience

Conclusion
The McDelivery App is functionally rich but suffers from several usability issues. Efficiency and end-user satisfaction. Improve consistency, reduce clutter, and clearly provide
Thus, system feedback integrated into the application allows the latter to smoothly and comfortably complete the user experience as a whole.