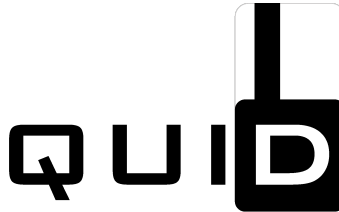


Project 1: Topic and client selection and product or system concept statement

Group 6



QUID

Quality User Interface for Dining

In collaboration with
Owens Food Court at Virginia Tech



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CS/ISE 5714 - Usability Engineering - Fall 2023

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1. Client organization

Our client for this project will be 'Owens Food Court', a dining hall at Virginia Tech. Owens provides a variety of cuisine options, especially through its use of daily updated menus. Given its location near the Drillfield, Newman Library, and Squires Student Center - Owens is one of the busiest dining halls on campus.

2. Client contact person/s

We will be working with the Associate Manager - Mr. Andrew Mills, Chief Cashier Officer - Mr. Doy, and employees who are cashier certified. The customers at this food court will be our extended users as they are indirectly affected at the Point of Sale (POS) by the system.

The details of Associate Managers, who will serve as points of contact at Owens is as follows:

Mr. Andrew Mills

Email: anmills@vt.edu

Mr. Deryk Noonkester

Email: deryk89@vt.edu

Owens Food Court

https://dining.vt.edu/dining_centers/owens.html

3. Context and brief description

3a. Existing system

At Owens Food Court, food orders are broadly classified into three categories:

1. To-Go - Students order and pay in-person (using either a hokie passport or credit card)
2. Grubhub orders - Students order and pre-pay online, then come to collect their meals

3. Pre-packed food - These are pre-packaged goods that students buy in person; these goods have a unique barcode to scan and pay for the assigned amount.

There are five modes of payment to consider:

1. Hokie passport - This makes use of hokie passport laundry money and is functionally equivalent to a debit card.
2. Dining dollars - This scheme allows the user to get a 5% discount on the food they buy.
3. Flex dollars (CS Gold) - Under this meal plan, students can buy food at 50% off the original price.
4. Credit card payments - Rarely used by customers and require extra input from cashiers.
5. Employee meal pass - Available only for employees, these passes are valid for 24 hours following a shift.

With the various modes of payment and ordering described above, the existing system is falling short of effectively meeting the operational needs of both cashiers and managers.

Our project is focused on improving the POS system, by introducing real-time menu updates and making it easier for cashiers to handle transactions. Our goal is to significantly reduce the common errors that cashiers frequently encounter, improving the checkout experience even during peak hours.

3b. General issues faced

One of the biggest problems cashiers face is when they have to cancel or remove items from an order, known as "voiding." This affects their job performance because there's a rule that says if they void more than 20 items, they get a warning. If they get three warnings for the same thing, they could lose their job. Voiding happens when cashiers make mistakes, like ringing up the wrong item or when customers change their minds. This becomes a big issue during peak hours.

Another problem is that it's not easy for cashiers to tell which items are ordered often and which ones are rarely used. Also, the system doesn't always show what items are available at a given time, making the cashier's screen filled

with unusable food items. It's also confusing to figure out which shop is selling which items. Besides these problems, once the item has been selected and accounted for, it does not return to the initial page it was on, thus making the navigation more difficult for the cashiers.

At the heart of our design vision is the transformation of dining experiences through the innovative Quality User Interface for Dining (QUID) system, keeping the cashiers and officers who interact with it on a daily basis. Our goal is to seamlessly merge technology with human interaction, making dining at Owens Food Court, Virginia Tech, an effortless and delightful experience at the POS.

4. Perspective of the project

Our project aims to fix these problems from a system perspective. Our design vision is to create a user-friendly interface with reduced clutter that's easier for cashiers to navigate and operate. This improvement will help cashiers avoid making mistakes, especially during peak hours.

5. Project Concept Statement

Quality User Interface for Dining (QUID) is a redesigned Point Of Sale (POS) interface developed for Owens Food Court at Virginia Tech. The revised interface provides better distinction of food items from restaurant selection, increased parity of item naming between front and back of house, and a prominent payment dialog for cashiers and customers. Improving upon the existing interface, QUID allows for more streamlined management of menu item availability as designated by managers and for more intuitive and rapid item selection for cashiers. This will result in fewer voided transactions due to the reduced improper inputs, faster customer throughput, and reduced mental load on cashiers. Crucially, QUID generates payment confirmations, bolstering transparency and trust in financial transactions. QUID, backed by cashier-friendly user interface, represents a comprehensive solution for Owens Food Court, promoting operational excellence and customer satisfaction.

6. Learnings from the Cashiers and Managers

We met three cashiers and one manager at Owens Dining Hall. Two of the cashiers have been working for a while, while the third one is a new employee. Our discussion primarily revolved around the generic pain points of the POS user interface and what they like about it. As a general observation, there are several issues that cashiers encounter with the current system. For instance, one common issue mentioned was the 'Voiding Items' process. Following this initial meeting, we are planning to meet the Chief Cashier Officer to gather his perspective on the POS user interface.