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CSI-400-01 Human Computer Interaction

Study Design for Mobile App Quiz Roulette

Introduction

I believe I have created an app that will tell the user whether they prefer swiping or button pressing as the main method of input on a mobile device. The application that I will be implementing is a quiz game app on iOS to depict what is preferred when it comes to UI interaction, swiping or button pressing. I will be testing this implications by analyzing the time that it takes for the user to complete the selected quiz in both implications of button pressing and swiping; as well as, analyzing user data with a CSUQ post questionnaire to analyze with the user believes is the best methodology. The purpose of this study is to give myself a grasp as to how I could potentially build future mobile applications or hardware on devices. Whether the buttons should be primary source of UI or if swiping should be. I want to test this theory by gathering the feedback that the users give me on my multiple choice quiz app to depict if buttons are still in favor? By gathering feedback via CSUQ, I can get an ease of use and the ease of use will determine if the users have a better experience with buttons or swiping.

Variables:

Independent: User Input Methodology

Swiping or Buttons

Dependent: Enjoyment of each section

Values:

The Satisfaction of the User Interface for Swiping and Buttons

Conditions:

User's interaction with the Button Interface

User's interaction with the Swiping Interface

Hypothesis:

Swiping is the preferred methodology of user interaction due to the lack of buttons on mobile devices.

Null Hypothesis:

Swiping is not preferred anymore than that of button pressing on mobile devices.

I will conduct the study alone with the users who would like to participate. The users will be given an iPad with the application running with no outside aid to help them. The app will give them instructions on how to proceed with the testing.

Data Collection Methods

For my data collection I will be implementing a Google Form for having the user answer a CSUQ questionnaire during each methodology. In all the form will be filled out twice with the independent variables being the two different times that the user takes the quiz. The only data that I will be filling in is the participants PID and the Participants Condition. These surveys will be done online in person.

I will use the Feedback's significance between my users perform significance testing to support my hypothesis of depicting which implementation is preferred moreover the other. Utilizing Kruskal-Wallis Implementations to calculate the significance. I will need 10 sets of data that fit into each category as a minimum but I am aiming to receive 25 members throughout each classification. All data collection will be done in person with the interaction of the app being supervised by myself and the survey being completed on a computer after the questions are completed.

The data will be anonymous as no personal information will be taken into consideration for the forms. The only thing that will matter is the results of the CSUQ surveys, I will not ask for this information. All I ask is that they follow the directions that I give them and nothing more. No screen capturing will be taken into consideration when the testing is in progress.

Protocol and Procedure

As soon as I come in contact with the user I will hand them the iPad mini and say ‘Goodluck, please the text on the screen carefully and when it tells you to stop. Please stop and await my instructions. Have Fun’ The activity will go as follows:

Users will select one of the sections to answer and that section will be marked as the first PIV/Condition for the survey. When they have finished the survey’s section they will be prompted to see me. They will then fill out one of the CSUQ questionnaires with the prefilled data filled out by me when monitoring the current session. This questionnaire will be presented to them via Google Forms on a laptop. When they have finished the survey they will then take the next section of the quiz. I will ask the user to get up and revisit the Google Form and have them fill out the CSUQ quiz for the next condition. After they have finished the questionnaire the user is done and is free to leave.

The user will then be guided to a safe location that is isolated from the outside forces. With that said I aim for this testing to be done at fireside but I am more than likely going to be settling on the common area of 194 Saint Paul Street. The object is to simulate as if the user is using the application on their own time alone. But I will aim to start testing as soon as possible because I want this done before Thanksgiving break. I plan to do this on the weekend in the future when the application is complete.

I will provide the user with all the materials that they need. I will be doing a within testing implication and I will be having the user fill out a CSUQ for each of the conditions. The Conditions being going through the interface with button pressing and that of swiping.