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SENG 310
Assignment 2

Q1

The learner performance was measured by the amount of time the user has spent to complete the post-test. On average, users who did the test on their own mobile phones finished around 25-45 minutes, whereas users who did the test traditionally on their desktop using “eLearning” completed in 40-60 minutes. The main factor that affected user’s speed on the test was due to the ease of use of the interface design. Flash animations were converted to simple static images for optimization on smart phones, which also decreased the time the users must wait for the animations to play.

Q2

The two biggest benefits of mLearning discovered in the study was convenience and time management. Since majority of the respondents were from the services, they do not always have the opportunity or time in their busy schedule to complete the test. With mLearning, users are able to do the test on their own desired time and location, such as on lunch break or during commute. To improve convenience for users, the course was designed with old and new phones in mind. The use of progressive enhancement ensured that the course would be compatible with older generation mobile phones that trades visuals for usability. In addition, this design significantly lowered the amount of bandwith required to load the course compared to the regular eLearning.

Q3

Learner satisfaction was measured using a scale from 1 to 5 with 1 being not satisfied and 5 being extremely satisfied. From results of the end-of-survey, 38 percent of the people rated mLearning a 5 and 46 percent rated a 4. Moreover, 70 percent of the people who had previously completed the test using eLearning preferred the mobile version. Overall, the user study of using mLearning improved performance, the number of responses, and satisfaction of individuals.

Q4

The focus group consisted of 3 groups in the study. Students who had just finished basic military training, advanced officers, and civilian and military personnel. The officers were analyzed on their own while the beginners and civilians were interviewed together. Data was gathered using informal discussions with open-ended questions instead of the survey method used in the user study. Conclusions from the group consisting of officers were mostly negative. Since all the officers had previously done the mandatory course using eLearning, the mobile version was preferred solely on the reason that they could complete the test quickly and effortlessly. mLearning had information organized in a way that were more direct, such as using bullet points and a linking system that links definitions directly to the glossary. It was suggested that the course does not contribute to their job and the answers can be found on “Google” or by trial and error. Furthermore, users found the material too repetitive and issues with navigation and video playback.

The last two combined groups who mostly have never done the course before, had similar experiences. Users were skipping past most of the content to finish as fast as possible and found issues with

functional buttons and video playback. However, users in this group found that the touch screen was more engaging and was convenient. Since the mobile version only requires internet, users could potentially complete the test on their own time.

Results from the focus group and the user study has their similarities and differences. First, the method of data gathering was different. The user study used a survey opposed to interview questions for the focus group. Open-ended questions from the focus group generated more meaningful information on the reasons why users were completing the test so quickly. On the other hand, it is unclear whether the individuals in the user study were finishing quicker based on ease of learnability of the mobile version, or just users trying to complete the test quickly as possible. Similarities between the focus group and user study includes convenience, time management, touch screen interactivity, and structure of concise information. Since mobile technology is already being used on their job, mLearning takes advantage of users who already use their smart phone on a daily-basis.

The study shows that mobile learning has an affect on performance of users, attitude towards mobile courses, and learner satisfaction. Although overall speed in which users complete the test is significantly better than the traditional eLearning, it is unsure whether it has an affect on how users attain the information learned as eLearning and mLearning scores were not looked at.

Q5

Introduction

The process of design and creating software products is shifting day by day to mobile devices. Modern mobile applications have increasingly efficient interfaces, including more intuitive and versatile on-screen keyboards, making these devices adequate tools for performing complex tasks, where traditionally we have been used desktops. An objective to test the functionality between the desktop version of Discord and the mobile version to be able to determine whether users prefer to use one over the other on certain tasks. Discord is an application designed for gamers to talk to each other in real time. While playing a game on their device, users can join a Discord channel to enter a group chat with multiple other users so they can talk while they play. In addition, Discord allows the ability to host different channels that work similarly to Slack, that allows users to create communities to be able to discuss about similar interests with many other users. Overtime, Discord has become a large socializing platform that supports voice calls, video calls, group chats, social media, and even an online store for distributing games.

Methodology

Although Discord has many functionalities on the desktop version, the mobile version is a balance between adequate usability and user experience. It contains the most popular features that users are most likely to use in a compact simplified design. The objective of this study would be to determine

which version of the application users would prefer to use for features that are available on both the desktop and mobile version.

Deciding Features

In order to effectively compare functionality of the features on the desktop and mobile version we need to identify the tasks that people use the most. For this process, we can conduct a simple online survey for people who use discord on a daily-basis. The survey will have a list of functionalities that Discord has that works on both platforms and ask precipitants to list from most to least used. From the data gathered, we can use the information to form a list of questions and tasks to test on a focus group later.

Focus Group

Several groups will be formed to test how users perform and use different features on the application. Group 1 will consist of young adolescence, Group 2 will consist of older adults that are unfamiliar with the technology, and Group 3 will consist of users who use Discord on a regular basis. For each isolated group, have individuals perform several tasks first on the desktop version, then followed by the same task on the mobile version. Tasks include joining and leaving a channel, starting voice calls, typing in the chatbox, and accessing direct messages.

While users are performing the tasks, observe without intervening how well they are navigating through the interface, and whether all the functionalities are intuitive to the user. Moreover, time, log and track the following research questions:

(1) The performance in the execution of a series of tasks on a desktop computer is more or less than executing the same tasks on a mobile phone.

(2) The usability perceived by user will be different depending on which device s/he performed the tasks: mobile or desktop.

(3) The number of usability problems detected by one user is lower when s/he performs tasks on a desktop computer than when the user performs tasks on a mobile phone.

Results and Analysis

For each task performed by the individual after the test is done, ask how well they think they performed on the task on a scale of 1 to 10 and if they preferred to use the same function on the desktop or mobile version of the application and discuss why. In addition, analyze the time difference needed by a user to perform each task on the mobile version calculated regarding the time needed to accomplish the same task with the computer. Formalize all the data gathered into a table to compare the effectiveness of each task according to different users. Group 2 who have never used Discord before may have a greater time on overall performance, whereas the young adolescence may perform better on the mobile version instead of the desktop version since they are more likely to be exposed to mobile interfaces more often.

Conclusion

The desktop version of Discord could potentially improve the efficiency of users when they have to carry out certain complex tasks, compared with the efficiency that can be obtained by performing the same

tasks on a small screen device with on-screen keyboard, on the mobile version. This study can conclude the effectiveness of the two versions by first conducting a survey to decide which functionalities to pursue the test on for the focus groups and followed by more in-depth analysis and observation for the data gathered within the focus groups. Furthermore, we can have a clear understanding of how the effectiveness both versions have on users by examining the performance in execution of the tasks, the usability perceived by the user, and the number of detected usability problems experienced regarding to the problems detected when they do with the desktop or mobile version.