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MMG3033

HUMAN-COMPUTER INTERACTION (HCI)

USABILITY EVALUATION METHOD (UEM)

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HUMAN COMPUTER INTERACTION (MMG 3033)

SEMESTER 2 SESSION 2020/2021

ASSIGNMENT 2: UEM

Working in a group, you and your teammate are required to conduct a **usability evaluation method (UEM)** based on the findings of your paper prototype (Group Project).

Assuming that the paper prototype has been converted into digital prototype, you are required to conduct an evaluation process to ensure that the system is well-developed and fulfilled its objectives. Identify **one (1)** appropriate **evaluation type**, **evaluation techniques** and **evaluation methods**. Justify your answers.

Figure 1.0

Hints: You can refer to Chapter 8: Evaluation or any other sources.

What is Evaluation?

Evaluation is hoped to get rid of any problem that might be occurred within the systems. It collects information about users or potential user's experiences when using or interacting with prototype, computer system, component of a computer system or a design artifact. Evaluation is a process by which the interface is tested against the needs and practices of the user. It is important to evaluate the system in terms of what aspect of, when and how the user interface will be tested and by whom the testing will be done. Evaluation also the determination of the significance, worth, condition, or value by careful appraisal and study. The tests of evaluation are a usability, functionality, and acceptability of an interactive system. An evaluation method must be selected carefully and appropriately.

Why we must do The Evaluation?

The goal of the evaluation is to provide feedback in software development. To understand whether the development and the final product achieved the intended values and significance. The main of reason why to evaluate is understanding the real world, comparing designs, engineering toward a target and checking confirmation to a standard.

Evaluation Type.**a) Use and Impact.**

This evaluation type is conducted during the actual use of the product by real users in real context. This evaluate type is refer to user who using our interface design, user will use our interface and what will impact them after using our interface design.

Evaluation Techniques.**a) Usability Testing.**

Usability testing is the practice of testing how easy a design is to use with a group of representative users. It usually involves observing users as they attempt to complete tasks and can be done for different types of designs. It is often conducted repeatedly, from early development until a product's release.

Evaluation Methods.

a) Asking User.

Asking user is a user satisfaction questionnaires and interviews are used to elicit users' opinion. Interviews can be thought of as a "conversation with a purpose". How like an ordinary conversation the interview is depends on the questions to be answered and the type of interview method used. There are four main types of interviews: open-ended or unstructured, structured, semi-structured, and group interviews. The first three types are named according to how much control the interviewer imposes on the conversation by following a predetermined set of questions. The fourth involves a small group guided by an interviewer who facilitates discussion of a specified set of topics. The most appropriate approach to interviewing depends on the evaluation goals, the questions to be addressed, and the paradigm adopted. For example, if the goal is to gain first impressions about how users react to a new design idea, such as an interactive sign, then an informal, open-ended interview is often the best approach. But if the goal is to get feedback about a particular design feature, such as the layout of a new web browser, then a structured interview or questionnaire is often better. This is because the goals and questions are more specific in the latter case.

b) Observing User.

This means spending time with a user or group of users and observing their behavior with the product as they use it in day-to-day life. The observer records their observations as they see fit. This is very much an approach which leads to qualitative outputs.

For the data gathering from our evaluation technique and method, we use surveys and questionnaires. We used to collect information from a large group of respondents by provide some question to users. We choose this data gathering because of written user survey are a familiar, inexpensive and generally acceptable companion for usability test and expert review. Our survey goals would be tied to the components of the objects and action to our interface model of interface design.

We used survey and questionnaires for our data gathering because questionnaire can provide a vast body of information and questionnaires are also a good of attitude measurement. We will use a form of the open question that respondents can be answer our question the way they choose and also the form of closed question for our data gathering.

<https://forms.gle/TV42pcKT4FrzeaqS6>

(Link google Form that include all our question for data gathering)

Example open form question that we provide to end-users :-

Evaluation

Evaluation

Satisfying Level to User After Used Our Interface Model/Interface Design

1. What aspect in our interface did you like the most?

Your answer

2. What is your opinion about colour consumption on our interface?

Your answer

3. What is the most important feature you think we should add to our interface?

Your answer

4. How did you first learn about our interface?

Your answer

Example closed form question that we provide to end-users :-

1. Is our interface can be used for disable people?

☐ Yes

☐ No

2. Will you recommand out interface to your friend or family?

☐ Yes

☐ No

3. How easy is our interface to use?

☐ Very Easy

☐ Easy

☐ Difficult

☐ Very Difficult

Tick your choose. ("Strongly disagree"-1 2 3 4 5 -"Strongly agree")

	1	2	3	4	5
I think that I would like to use this system again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I thought there was to much inconsistensy in this interface	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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I found the interface is very cumbersome to use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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