User Responses of Information System Development for Examination Administration in Del Institute of Technology

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Abstract

Knowing and investigating the perspective of user is necessary in order to find out how effective an application is built for a particular purpose. This study explored the user response of Information System of Examination Administration in Del Institute of Technology. This research focused on how users think and respond the information system and its interface. Using quantitative methodology, this study analyzed the data collected using the including ANOVA or T-table formulation to decide whether the information system is needed to be built with the design inserted. Result suggested that the examination administration system is needed with some recommended functions and interfaces. This study contributes in giving insight of developing examination administration information system through the perspective of the users or future users.

Keyword: user responses, interface, information system

I. INTRODUCTION

Examination is an activity for students that includes the test and the review about the lessons that the students received before the examination. Examination is therefore designed with a set of questions which have to be answered or responded by the tester to measure some aspects[1]. Similarly to examination, test is an assessment tool or assessment method systematic, legal, and trustworthy and objective to determine competence, skills, and the level of students’ knowledge of teaching materials, in the form of a task or problems that must be solved by a student or a group of students[2].

Examination is an activity for students that include the test and the review about the lessons that the students received before the examination. There are 2 main examinations in the school or college, such as middle semester examination and final semester examination which are followed by all of the students. Examination event not only talked about the event itself but also the preparation of the examination like the process in making questions, generating supervisor and inspector, etc. and the event after the examination was held. In Del Institute of Technology, the system of the examination event is organized by the Academic and Administration Office. Until nowadays, the examination system on the lecturer’s side can still not be automatic in the whole part, just like scheduling, the calculation of making the exam’s questions, etc. Lecturers who have responsibility in one or more subjects also have to take care of the examination event of the related subject. The lecturers have to make the questions and check the students’ answers and they also have to confirm their works to the Academic and Administration Office for the things that related to the fund. The staff has to make the examination schedule for all of the subjects from all majors and faculties and they also have to schedule the supervisor and inspector of the examination who are from the lecturers and the academic assistant. The current system of the examination event is not implemented automatically for all of the parts such as the staff still arrange the examination schedule manually so there are many clashes for all subjects and the inspectors. The academic side also has to calculate the examination funds or costs for all of the lecturers that coordinated the subjects and for all the inspectors in the examination event. The bulletins of the examination are also collected manually by the inspector to the academic side. Based on the current system, there are many things that can be improved to reduce the failure risks for the examination system such as the examination schedule clashes, the miscalculation for the examination fund, etc. Therefore, this paper is going to explain about user responses by using this expected information system which will have been improved from the recent system.
II. METHODS

The method that is used in this research is a quantitative method which uses systematic and mathematical models. Quantitative-based research can be descriptive, correlational, and associative based on the relationship between variables included. In order to collect the data, this research uses interview data so the researcher will gather needed information from the interviewees. In this case, the researcher will interview the stakeholders in the research who are lecturers, academic staff, and students to get the information. This technique is used to get more detailed information from the interviewees so their opinions can be received well[3].

After collecting the data, researcher will process the data and analyze it. The analysis technique that is used in this research is comparative analysis. Comparative analysis is used to look for differences in the data between the categories obtained. In this study, a comparative analysis will be used to see the average difference in the results obtained from each alternative in a UI design component. Comparative analysis is carried out by performing ANOVA or T-test on each alternative in one design component. The formulation of the problem used is the formulation of the comparative problem[4]. The formulation of a comparative problem is a formulation of a research problem that compares the presence of one or more variables in two or more different samples or at different times[5].

III. RESULT

This research was conducted to investigate the perspective of users in examination administration information system in Del Institute of Technology. This study examined some perspectives from lecturers, staff, and students related to the application development with their functions and features. By using the quantitative methodology through ANOVA or T-test formulation, the result will show whether the application development is needed or not.

In conducting the research, the respondents were shown the interface of the application system so that the respondents can decide whether the design is good enough to support the functionalities. As many as 105 respondents including lecturers, administration staff, and students were given questions related to test conduct.

a. Question: Has the administration system been implemented properly?

b. Question: Is the information system of Examination in Del Institute of technology necessary?

Regarding the question whether the Information System for Examination Administration at IT Del is necessary or not, there are 96 respondents who said the Information System for Examination at IT Del is needed and 9 respondents said the Information System for Examination at IT Del is not needed.

Other questions given were related to the sample interfaces shown to the respondents. Interfaces shown were related to the function such as features of Test Request and Test Schedule, 95.2% and 93.3% respectively said that the interfaces shown were easy to understand and easy to use.

IV. DISCUSSION

In this section, the results of user responses through the form will be tested using the ANOVA test. ANOVA test is one of the methods used to see the difference in data between two or more groups to get the conclusion if the main hypothesis is needed or not.

From the ANOVA test conducted, the following are the hypotheses applied:

H0: Information System is not needed
H1: Information System is needed

Based on the test, the result indicated that the P-value = 0.0211 < alpha = 0.0, which indicated Reject H0 (Accept H1). From the results of the analysis, it can be concluded that, the information system of Examination Administration in Del Institute of Technology needs to be built.

From the responses, it can also be concluded that the interface design was good enough to support the functionalities of the system.
As discussed earlier, focus on this research is to know and to investigate the users’ perspective on web construction. Based on the result, is it indicated that the application’s functions and the interface become 2 main focuses addressed by the respondents. Each role of users has its own individual feature within its interfaces.

V. CONCLUSION

Knowing and investigating the perspective of user is necessary in order to find out how effective an application is built for a particular purpose which is to provide the information system about examination administration. This study is focused on how user’s response upon the information system that will be built. From the discussion result, this indicated that the administration system is needed with interfaces and designed recommended.

Understanding that few researches discussed about the users’ perspective, this research has contributed in giving new insight of developing examination administration information system through the perspective of the users or future users. This research was conducted only focused on the staff and lecturers’ side, so the students only have the features to view their profile and to see the schedule although there may be some additional features. So, for the future research, it is recommended to investigate other aspects from students as users for example the additional features of the test conduct and result display and information of test status.

REFERENCES


