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Research Article

Need Assessment For Learning App Implementation to Introduction Mobile Application Based on Mobile Learning

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Abstract:
The Purpose of the study was to analyse the Need of the Implementation of Mobile application based on mobile learning. This study used Survey Method, and the research subjects were fitfth (5) semester students of Computer System program of the Pembangunan Panca Budi University Medan. In collecting Data, the reaserchers used indirect communication Techniques, by using questionnaires, and Descriptive analysis was used as the data analysis technique. The result of the study are: (1) out of forty (40) students as respondents, all of them agree with the implementation of learning application based on learning mobile. It is because it can help students to study easily wherever and whenever they are. (2) the obstacle that may occur is the students' phone storage capacity is insufficient to run the learning application because of 25% memory has been used.

Keywords: Needs Analysis, Learning Application, Mobile learning

1. Introduction

During the pandemic of covid-19, the government requires education sectors to carry out the online teaching and learning process. It is done to prevent the deployment of deadly virus called covid-19. Many educational institutions use E-Learning, zoom, Google Meet, and others to carry out online teaching and learning process.

Online teaching and learning process is implemented in all of educational level, as experienced in undergraduate students of the computer system program of the Pembangunan Panca Budi University. Computer system program has Mobile Application course which teaches students to produce an application that can be run on android smartphone. The application which is produced comes from a programming language.

Programming language is a tool used for producing applications, information system, games and others. It has some types, such as; PHP which produce information system, actionscript produce interactive multimedia, and java which is used to produce application that can be run in android smartphone.

Learning programming language requires students to have a high level focus and logics. Face to face learning in the courses which contain programming language has not received satisfactory results. Utami&Iswara (2018) said that programming language learning was poorly understood by the students. So that, it was difficult for them to understand the programming basic and do some assignments in the course which requires programming language skill.Lantinen et al., (2005) said that the difficulty of learning programming language is caused by abstract concepts in learning programming language, not many learning resources, lack of understanding in programming instructions, and the learning methods used are not suitable for students needs.

Because of Covid-19, learning activity is required to be done online, which make it even more difficult for students to learn. Beside that, online learning also consumes much internet data that makes students have to spent more money. Students also have to find a place that has internet access with stable network in order to avoid network disconnection during learning process. According to Steve, and Patrivan (2008), mobile learning can be used in an educational environment. It can help students inside and outside of the classroom.

Therefore, the development of learning application based Learning Mobile has to be done. Learning application which is developed contains the introduction of mobile application aimed for students who study at computer system program of Pembangunan Panca Budi University, Medan. The use of learning application based mobile learning is considered more appropriate to be done in order to give practically and effective learning for students. Brown (2005) said that mobile learning can contribute in education quality. Learning application based learning mobile will be packaged with multimedia elements such as text, sound, images,

animation, and video which are expected produce interactive learning application. It is also made for offline using with the result that students do not have to pay more and find the place with stable network hardly. Fatima et al., (2017) stated that content presented in the learning mobile should contain good quality images and sound, so that students will enjoy and use the application repeatly.

The formulation of the problems of this study are, (1) Do students agree with the use of learning applications in the introduction of mobile application based mobile learning? (2) Are there any obstacles that might occur in the implementation of learning applications in the introduction of mobile application based mobile learning?

2.Method

This research is a quantitative descriptive which uses a survey method conducted at the Computer Systems Program of the University of Pembangunan Panca Budi Medan. The population of this study were 40 students who were taking the Mobile Application Subject. This study uses a saturated sample technique, which uses the entire population for the research. In collecting data, this study uses indirect communication techniques by using a questionnaire that is distributed to 40 students. Questionnaires will be distributed to 40 students after presenting an example of the learning application based learning mobile.

Learning applications which are presented to the students were different with application that will be made by students. The purpose of presenting the learning application is to collect the data needed in the development of the learning application introduction to Mobile Application. The presentation of the learning application will be demonstrated and then students are requested to use the learning application. After seeing the demonstration, and using it, then the questionnaire was distributed to students.

From the questionnaires that have been filled in by students, researchers get the data about the needs in developing learning applications based on learning mobile. The data will be analyzed using quantitative descriptive. Furthermore, the data will be grouped and assessed in the form of a percentage.

3.Result and Discussion

Data of this study is collected through a questionnaire that was distributed to students. The questionnaire distributed contains questions related to the application of mobile-based learning applications, and it is a combination of closed and open questions. The questionnaire which are distributed consists of two (2) questions. Questions number one (1) and two (2) have the answer options "Yes" and "No" , and the respondent have to tell the reason why they chose the answer "Yes" or "No". In accordance with Yusri et al., (2015) before designing and implementing a mobile learning system, it is important in ensuring the user's perception of the future of mobile learning, because it will affect the willingness and readiness at home.

The following are the results of the analysis of the data obtained by distributing questionnaires to respondents.

Question 1: Do students agree with the use of learning applications in the introduction of mobile application based mobile learning?

All Students who became Respondents in this study answered agree or "Yes" In the using of learning applications in the introduction of mobile application based on mobile learning. With this, it means that research development can be carried out, so that it can produce learning applications that can be used for the introduction of mobile application based on mobile learning.

Beside answering "Yes", the respondent also have to fill in the information from the answer which can be seen in table 1.

Table 1 Information of Respondents who Agree with the application of learning applications on the introduction of mobile application based on mobile learning

No	Information	number of respondents	Percentage
1	The material is neatly arranged in the learning application	6	15%
2	Learning applications consist of text, images, sound, animation, and video to support learning	4	10%
3	Learning applications do not require internet access	5	12.5%

4	Can be used anywhere	7	17.5%
5	Can be used at any time	8	20%
6	Can increase learning interest	10	25%
Amount		**40**	**100%**

From table 1 it can be seen that there are three (3) information that is choosen the most, they are can increase interest in learning by 25% or 10 students, can be used at any time by 20% or 8 students, and can be used anywhere by 17.5% or 7 students. It can be concluded from question 1 that learning applications can increase learning interest, it also can be used anytime, and anywhere. In accordance with the research of Chandhok&Babbar, (2011) which states that mobile learning can be used for distance learning.

Question 2: Are there any obstacles that might occur in the implementation of learning applications in the introduction of mobile application based mobile learning? If you answered YES, give your reason!

The number of students who answered "Yes" was ten (10) students or 25% of the total number of respondents. The obstacle that may occur in the implementation of mobile application based learning applications is the insufficient storage capacity of the Respondents' smartphone memory to run the learning application, because it is full. This is because generally a learning application consists of multimedia elements such as text, images, sound, animation, and video, that require large memory storage capacity. While the remaining thirty (30) students or 75% of the total number of respondents answered "No", means that students do not have problems if the use of learning applications is carried out.

4.Conclusion

For the forty (40) Students as Respondents, all of them agree with the use of learning applications to the introduction of mobile application based mobile learning, because it can help students to study easily anywhere, anytime. (2) The obstacle that may occur is that the respondent's smartphone memory storage capacity is insufficient to run the learning application.

Therefore, this research can be continued by developing a mobile learning application based on mobile learning for students.

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