

# Integrated Application Design at the Faculty of Language and Arts, Universitas Negeri Medan

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**Abstract.** The Faculty of Language and Arts is a faculty under the auspices of the Universitas Negeri Medan. This faculty has many departments that have a lot of interest, initially this faculty was not very interested, but over time and received many awards, the Faculty of Languages and Arts became more and more in demand, so that good service was needed by utilizing technology, namely Integrated Applications, based on the results of an analytical survey. the needs of 83% or 1110 FBS students and employees need the Integrated Application and as many as 17% or 160 students and employees feel the Integrated Application is not needed and get a percentage of 86% of design validation with very good criteria. So it can be concluded that an Integrated Application is needed to support performance and services at the Faculty of Languages and Arts.

**Keywords:** integrated application, faculty of language and arts, design.

## 1 Introduction

The Faculty of Language and Arts is one of the faculties at the Universitas Negeri Medan which is located in the city of Medan. The Faculty of Languages and Arts itself consists of various majors that are in great demand by high school graduates, so that the provision of services must be carried out properly. As one of the faculties at Medan State University, the Faculty of Language and Arts continues to update and provide the best service so that an application is needed to support all activities at the Faculty of Language and Arts. Every year the number of students at the Faculty of Languages and Arts increases rapidly so that it has a significant effect on services.

At first not too many students were interested in the Faculty of Languages and Arts, but as time went on and received various awards that were very proud of at the Faculty of Languages and

Arts, more and more students were interested and this was marked by the service delivery being a bit slow so that an Integrated Application was needed. to support services at the Faculty of Languages and Arts. However, in reality the services provided are still not satisfactory enough for students so that students and employees feel that this Integrated Application is needed to improve the performance of the Faculty of Languages and Arts for both students and employees.

Service is a translation of the term service in English which according to 1 "any action or act that can be offered by one party to another, which is basically intangible and does not result in any ownership". According to 2 public services are a series of activities carried out by the public bureaucracy to meet user needs. 3 "as every activity carried out by employees for a number of humans who have every activity that is profitable in a group or unit, and offers satisfaction even though the results are not tied to a physical product". According to 4 public service is every activity carried out by the government for a number of people who have every activity that is profitable in a group or unit, and offers satisfaction even though the results are not tied to a physical product. 5 public service is the provision of services (serving) the needs of other people or communities with an interest in the organization in accordance with the basic rules and procedures that have been set.

Integrated Applications are Multi-User or Multi-User applications so that each type of user will have a customized Application Panel with their Access Rights<sup>6</sup>. This is a standard facility for multi-user applications to avoid data management that is not in accordance with user rights. Integrated application itself is an application that makes it easy for users to be able to access whatever the user wants so that the services provided can improve and work performance is getting better.

<sup>7</sup>This Integrated Application aims to measure the performance of the two performances besides that the Integrated Application can also display information about (1) Number of Users on each service. (2) the time required for the cumulative completion of the application from the time the application is submitted until the results of the application are received by the applicant or in part or (3) the time required for each process. And various other data processing results needed in performance evaluation activities and decision making in the context of sustainable quality assurance.

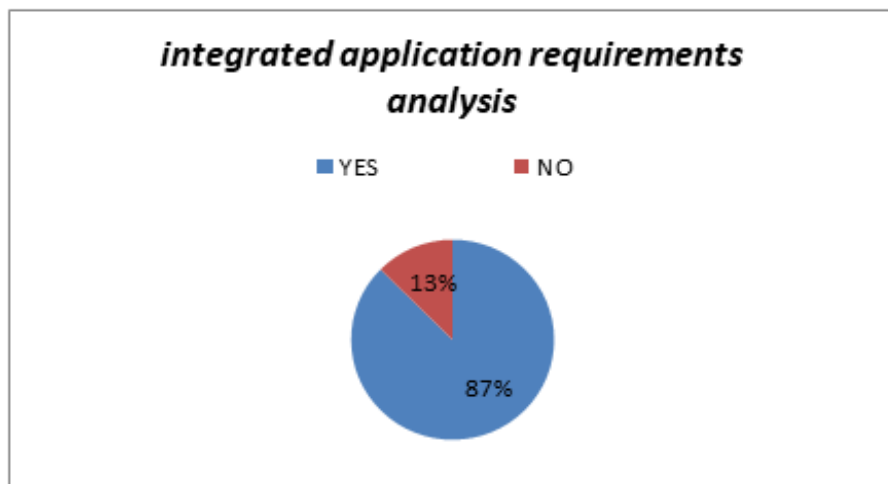
## **2 Research Method**

This research uses development research. Research and development methods are research methods used to produce certain products, and test the effectiveness of these products. To be able to produce certain products, research that is needs analysis is used and to test the effectiveness of these products so that they can function in the wider community, research is needed to be able to test the effectiveness of these products. <sup>8</sup>Development research in this study uses conceptual development through the following stages: (1) concept development; (2) product design development; (3) collection of materials needed for the product; (4) preparation of screen mapping of policy document products; (5) conducting trials which include: expert trials, limited trials, and field trials.

### 3 Research Results and Discussion

#### 3.1 Needs Analysis

Needs analysis is done by identifying users, namely FBS students and Pegwai. The analysis is expected to map what needs or problems must be discussed and the results of this needs analysis are as follows:



Based on the results of the distribution of the needs questionnaire with the number of respondents as many as 1270 employees and students. As many as 87% need this Integrated Application or if there are 1110 students and employees need this Integrated Application and as many as 13% of students and employees feel they do not need the Integrated Application if there are 160 students and employees. Based on the results of the Integrated Application needs analysis above, it is concluded that many students and employees need the Integrated Application to provide and obtain good and effective services.

#### 3.2. Support Device

In an effort to build an android-based, it is also necessary to prepare the hardware and software that will be used. The selection of hardware and software must be appropriate, so that the application creation process can run well, and can reduce the risk of obstacles and errors that can hinder the manufacturing process. The hardware and software in question are:

##### a) Hardware

The hardware required for the process of making this application is a computer or laptop with the following minimum specifications: a. Intel Core i5b Processor. RAM 8 GBC. Hard disk 64 GBD. Android smartphones of all brands.

## b) Software

The software needed for the process of making this application are: a. Microsoft Windows 7b. Android Studio. Notepad++ d. Android version 4.0 e. Xampp (php myAdmin).

### 3.3 Design Validation

**Table 1.** the results of expert validation of the developed product

No	Instrument	Percentage
1	Interesting Design Of Integrated Application Menu Display	83%
2	Appropriate Use Of Letters Size And Coloring In Integrated Applications	83%
3	Interesting Images And Icons Served In The Integrated Application	88%
4	Image Layout, Icon And Integrated Application Instructions	90%
<b>Total Average Percentage</b>		<b>86%</b>

Based on the results of design validation, in point 1, namely the attractiveness of the integrated application menu display design, it gets a percentage of 83% with very good criteria, then in point 2, namely the suitability of the use of font size and coloring in the integrated application, it gets a percentage of 83% with very good criteria, then in point 3 is the attractiveness of the image, the icons presented in the integrated application get a percentage of 88% with very good criteria, and finally in point 4, namely the layout of images, icons, and instructions for using integrated applications, the percentage is 90% with very good criteria. . So it can be concluded that the average percentage obtained from design validation is 86% with very good criteria. So that this integrated application is suitable for use by students and staff of the Unimed language and arts faculty to simplify and improve their performance.

### 3.3.4. Integrated Application Design



Figure 1 The initial view of the unified application

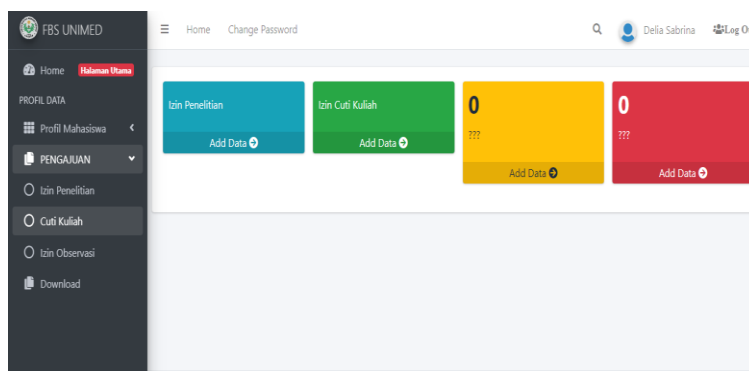


Figure 2 display of college leave letter management

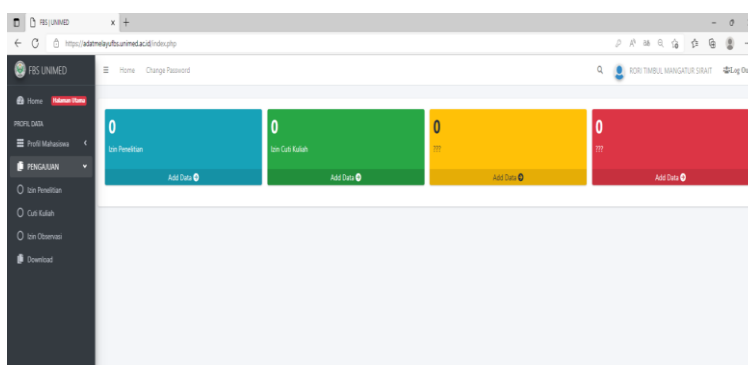


Figure 3 display of research permit management

## 4 Conclusion

The Integrated Application is an application that can be used by many users, this application helps speed up performance and provide the best service, based on the results of a survey of needs questionnaires given to students and employees as much as 87% answered "YES Opinion which means they need this Integrated Application while 13% answered "NO", in developing this integrated application it also requires supporting devices such as hardware and software, then this integrated application is also validated by design and gets a percentage result of 86% with very good criteria. So the conclusion obtained is that this Integrated Application is very much needed in the Faculty of Language and Arts

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