Need Analysis for Designing Administrative Services Websites for Students

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Abstract: Administrative services to students play an important role at the university. Optimal administrative services to students can increase university competitiveness. One effort that can be made is to provide digital and online based service facilities to make the service process easier. However, currently, there are still administrative services at universities that are not digital and online based, which causes problems. The research method starts from requirements and analysis. The aim of the research is to analyze needs for problems in the field as a reference for designing administrative service websites for students. Data were collected using questionnaires and interviews at Educational Technology Study Program, *Universitas Negeri Padang*. The research results show that students need website-based administration services to handle the administration of letters to departments. The results of this research provide a solution for study programs to the problems they face.

Keywords: Administrative Services; Students; Website.S

Introduction

Universities are educational institutions that cannot be separated from public service activities, namely administrative services. Public administration services are important in improving behavioral patterns, attitudes and personalities of all elements (Aneta et al., 2022). Administrative services will support the vision, mission and goals of higher education. Mail administration services are one of the important points in an educational institution. Administrative services for students are a very important priority because they can increase the competitiveness of a university (Iskandar et al., 2021; Tumoka, 2021). Good service quality will have a positive impact on the quality of service at the university. It is important for universities to optimize the quality of services to students amidst fierce competition like today in order to maintain their position. Optimal administrative services will make it easier for students

to carry out their activities in lectures, work on assignments, exams, research, field observations, and so on. (Rinala et al., 2013).

One of the efforts that can be made to improve services to all students is the provision of information and communication technology-based service facilities or digital-based services so as to simplify the academic service process (Kurniadi et al., 2017). The concept of digital public service leads to the principles of effectiveness and efficiency (Ashari & Sallu, 2023; Yunaningsih et al., 2021). Several other studies have also been carried out regarding the development of digital and online administrative services. The research results show that digitalization of administrative services makes things easier for students in higher education, namely time efficiency, provides a service system and provides satisfaction for students (Effendi & Tasrif, 2019). In addition, 82.8% of respondents, through the results of testing the web-based letter service

administration system for students, agreed that managing data on student letter submissions, starting from submissions, letters being processed, to giving notifications to students that letters have been processed can make the work of service officers easier to manage student letter (Alfianti & Rismayana, 2020).

The availability of digital letter archives increases the efficiency of archiving staff's time in searching for data (Farell et al., 2018). Public administration information systems online can organize archives more organized. (Rahayu & Marup, 2021). A web-based administration information system can improve the quality of student letter application services so that students can monitor the progress of letters submitted, have archives of documents available if required immediately by the department, and quickly prepare reports to the head of department. (Rahayu & Marup, 2021).

Educational Technology Study Program is one of all the study programmes available at Universitas Negeri Padang that performs the administrative service of letters to students. Based on the results of field observations, administrative services are not optimal due to several problems encountered in the field, namely:

1. The administration of student letters is still conventional, they are recorded in handbooks, for example research permission letters, observation letters, initial data collection letters, validator assignment letters, graduation certificates and college active letters.
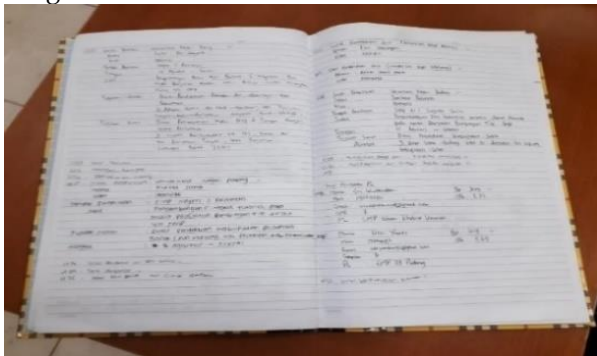

Figure 1. Administrative notebook

2. Students queue for administrative services.

Figure 2. Students queue

3. There is only one administrative staff to serve 589 students in study programs.

Figure 3. One administrative staff

The problems above can cause problems related to the effectiveness and efficiency of student letter administration services, student satisfaction with administrative services, lack of organization of student letter administration, lack of transparency in administrative services, slow administration service processes, risk of losing physical documents, and the large amount of paper used. . The purpose of this research is to conduct an initial needs analysis for designing a website for mail administration services for students in Educational Technology Study Program, Universitas Negeri Padang. It is hoped that the results of this research can overcome administrative service problems in study programs.

Method

The research method used is descriptive quantitative. Data collection was carried out by conducting observations, interviews and distributing questionnaires to students. The subjects of this research were 174 students at Educational Technology Study Program, Universitas Negeri Padang. The observations carried out were by making direct observations on research objects related to the flow of the student letter service process. Meanwhile, interviews were conducted with administrative staff regarding information about the agency and asked for information on the student letter service process.

Figure 4. Research Stages

Table 1. Student Questionnaire Indicators

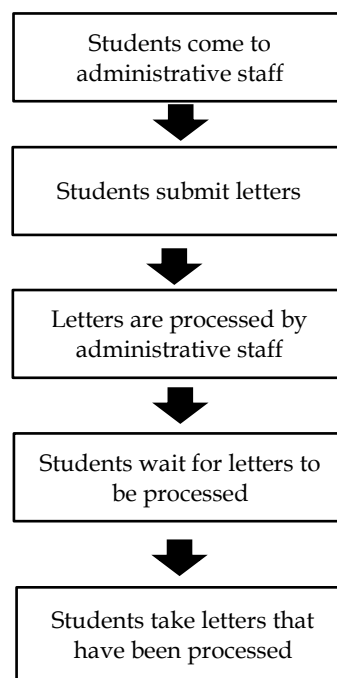| No.	Indicator
1.	Are you queuing to take care of mail administration in the Educational Technology Study Program?
2.	Is the mail service in the Educational Technology Study Program optimal?
3.	Does it take a long time to take care of letter administration in the Educational Technology Study Program?
4.	Are the service procedures for processing letters in the Educational Technology Study Program easy to understand?
5.	Is it necessary to develop a website-based (online) administrative service information system in the Educational Technology Study Program?

Tabel 2. Interview Questions

No.	Indicator
1.	What is the flow of student letter administration services in the Education Technology Study Program?
2.	Are the services in the Educational Technology Study Program integrated with technology?
3.	How many students in the Education Technology Study Program need administrative services?
4.	What kind of administration is often handled by students in the Educational Technology Study Program?
5.	How is mail administration organized in the Educational Technology Study Program?
6.	What are the administrative service hours in the Educational Technology Study Program?
7.	How long does it take students to take care of letter administration in the Educational Technology Study Program?
8.	How many academic staff serve students who carry out administration in the Educational Technology Study Program?
9.	Are administrative services to students in the Educational Technology Study Program optimal?
10.	Is there a lot of paper used for printing administrative purposes in the Educational Technology Study Program?

Result and Discussion

The results of the initial data analysis in the research aim to collect information about problems in the field so that they can become a reference for developing an administrative services website. Based on the results of observations in the field, the service flow for the letter management administration system for students was obtained as follows (Figure 1).

Based on the results of interviews conducted by researchers with the administrative staff of the Educational Technology Study Program, it was stated that the flow of mail administration services is that students who will handle letters come directly to meet the study program administrative staff in the

Educational Technology Study Program room. Students fill in data manually in the administration book according to each student's needs. Based on this data, the administrative staff will write a letter and submit it to the student concerned. Administrative services in the Educational Technology Study Program are not yet integrated with technology. The average number of students who come to administrative services is approximately 10 to 10. 15 people/day. Some letters that are often handled by students include certificates of active study, graduation certificates, research permission letters, validator assignment letters, research observation letters, data collection letters, and questionnaire distribution letters.

Figure 5. Mail administration system service flow

Administration in the Educational Technology Study Program is carried out by only one administrative staff with a total of 589 students. Letters can be issued on instructions or legality from the head of the Curriculum and Educational Technology Department and acknowledged by the Dean or Deputy Dean at the Faculty of Education. Services are open from Monday to Friday, 08.00 am to 04.00 pm. Break time from 12.00 pm s.d. 01.30 pm. Relatively short time to complete a letter request on average 1 day. It is possible that the letter can be completed in 2 to 3 days if there are problems when the legal person is not there.

Administrative services in study programs are not yet optimal. This is because the main duties and functions of administrative staff are not only serving letters needed by students. Administrative staff are also

tasked with completing administration related to lecturer needs and department needs with quite a lot of work intensity with certain deadline demands. Administrative staff also hope for innovation to build a digital and online-based system that can help administrative services in the department to be more effective and efficient. Papers are widely used for administrative letters for various needs. Therefore, digitalization is really needed to support environmentally friendly office activities. Digitalization really helps reduce paper use.

After conducting the interview, a questionnaire was distributed to 174 students from Educational Technology Study Program Universitas Negeri Padang class of 2020, class of 2021 and class of 2022. The following is data from the questionnaire results that have been filled out by students.
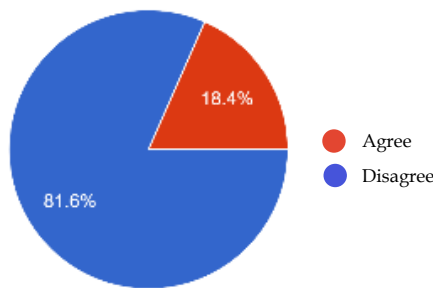

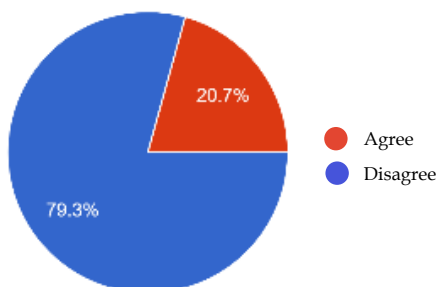**Figure 6.** Questionnaire results regarding queuing for administration

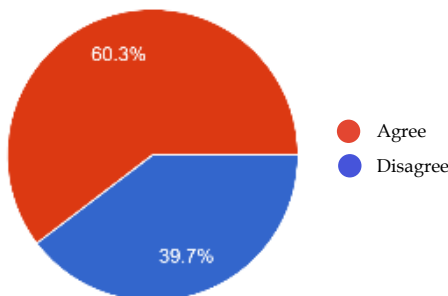**Figure 7.** Questionnaire results regarding the level of administrative services

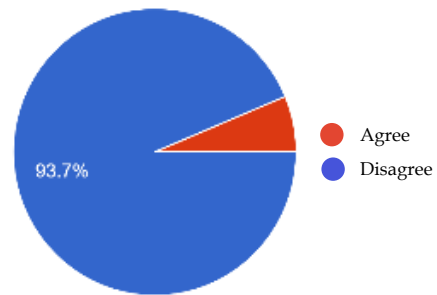**Figure 8.** Results of the questionnaire regarding the length of the administrative processing process

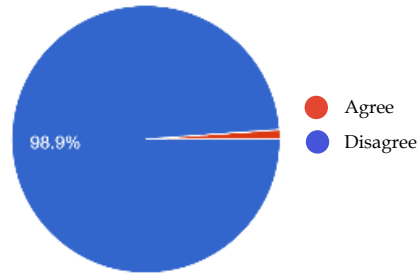**Figure 9.** Questionnaire results regarding ease of service procedures

Figure 9. Results of the questionnaire regarding the need for an administrative service website

The results of the questionnaire analysis above state that the obstacles to administrative services are that students are still queuing to process letters, mail services are still not optimal, processing time for letters takes a long time and 98.9% of students need an administrative services website to handle letters in the study program. Furthermore, based on the results of the analysis of observations, interviews and questionnaires, it can be concluded that website administration services are needed for administrative services for students in the Educational Technology Study Program, University Negeri Padang as a solution to existing problems in the field.

A website is a service that is connected from a computer or laptop to the internet via a web browser, displaying information containing text, still images, animation, sound or a combination of these forms of information which are static or dynamic in nature, forming a series of interrelated buildings connected by hyperlinks (Lestari et al., 2020). A website is a medium or page used to convey information and disseminate information that can be accessed anywhere as long as it is connected to the internet network and can be accessed anytime and anywhere without any geographical restrictions. (Rahmi et al., 2023; Zulfa & Wanda, 2023).

It is hoped that the existence of administrative services on the website will enable students to access it wherever and whenever and can monitor the progress of their letter submissions on the website (Rahayu et al., 2023; Sanjaya et al., 2020). Another advantage of an

information system using a website is that it makes it easier for users to access academic and student information, saves time and costs in the administration process, and is easier, faster, more effective and efficient. (Afandi et al., 2022; Fitriasari et al., 2023; Gumilar & Firmansyah, 2023; Pramono et al., 2020; Rosa et al., 2022). Having a website can make it easier to support learning activities in accordance with current developments (Rasmani, 2023; Wijoyo et al., 2023). With a website, it is possible to manage correspondence archives easily and systematically so that letter archives are stored digitally, for example especially incoming and outgoing letters. (Harmutika et al., 2022; Rahman, 2022; Syaebani et al., 2021; Zain et al., 2023).

Technological developments have had an impact on various areas of life, including in the field of education, especially higher education (Effendi & Tasrif, 2019). Academic administration services at universities by utilizing information and communication technology are a necessity today (Lelet et al., 2023; Melani, 2019). Academic services with the help of technology at universities are one of the driving factors for creating superior campuses that have high selling value (Permana & Astuti, 2022).

Furthermore, the author recommends developing a website design for administrative services for students with the following design.
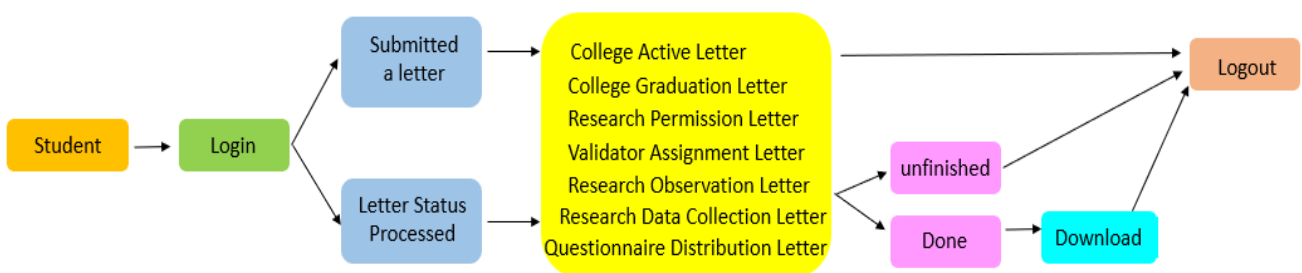

Figure 10. Website design flow for students

Based on Figure 10, the website service flow for student displays can be described as follows:
1. Students log in to the administration services website.
2. Students choose which letter to submit.
3. The letter options you can choose to submit are a certificate of active study, a certificate of graduation, a research permit letter, a validator assignment letter, a research observation letter, a data collection letter, and a questionnaire distribution letter.

4. Log out, and then wait until the letter has been processed by the admin (teaching staff).
5. If the student has previously submitted a letter, then the student can check whether the letter has been processed or not in the letter status.
6. If so, the letter can be downloaded immediately, if not, students can log out and periodically check that the letter has been processed.
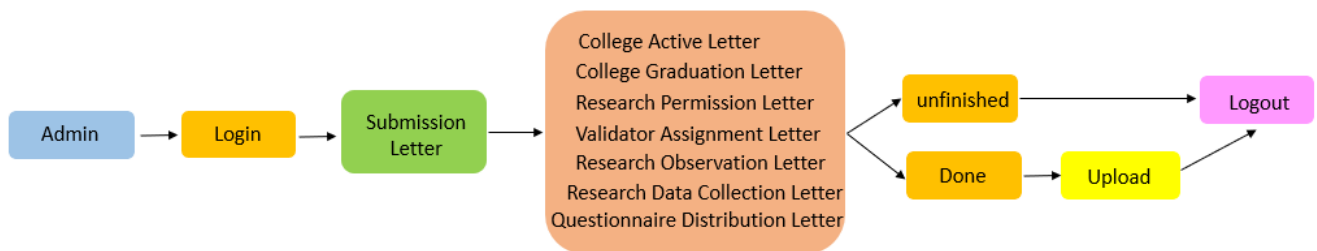

Figure 11. Website design flow for admins

Meanwhile, the flow of website administration services for admins or teaching staff based on Figure 11 is described as follows:
1. Admin logs in to the administration services website.
2. Admin checks the mail that comes to the website.

3. Admin processes letters submitted by students such as certificates of active study, graduation certificates, research permission letters, validator assignment letters, research observation letters, data collection letters, and questionnaire distribution letters.

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4. If so, then the admin uploads it to the website and the status of the letter submission will change to already processed.
5. If it has not been processed, the admin can log out.

Conclusion

Universities need to optimize the quality of services to students, especially letter administration services, making it easier for students to process letters for academic purposes. Letter administration services using technology in the form of a website will make the letter administration process easier for students, starting from submission, letter processing, to notifying students that the letter has been processed, archiving, effectiveness and efficiency. 99% of students in Educational Technology Study Program Universitas Negeri Padang stated that students need an information system in the form of a website to handle letter submissions, making it easier for them to submit letters anytime and anywhere without having to queue. Apart from that, improving the quality and efficiency of public services, facilitating student access to administrative information, and creating better mail administration governance.

Author Contributions
Rahmi Pratiwi: manuscript preparation, methodology, results, discussion, conclusions and editing; Winanda Amilia and Luthfiani: analysis and proofreading.

Conflicts of Interest
The authors declare that there is no conflict of interest regarding the publication of this paper.

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