

Implementing the School Management System through the Application in SDN 17 Rantau Utara

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Abstract

The rapid development of information technology is a very important role in supporting educational institutions at SDN 17 Rantau Utara where the purpose of this research is to create an application system that can help schools in management. This study uses the faterfall method, the application system that has been created is used to store data related to schools, teachers, staff, students. The results of the research at SDN 17 Rantau Utara are expected to be able to improve the quality of application-based school management.

Keywords

information technology, education; school management system



I. Introduction

In the era of 4.0, Indonesia in education is closely related to advances in the field of information and communication technology. Indonesia is currently entering the era of 4.0, information and communication technology has developed and developed rapidly. With the highly developed technology in the field of science that is used as a tool for school principals for school management. The field that has had a significant impact with the development of technological advances is that in the field of education, it is a process of communication and information from education to students. The field of education that can be done is by utilizing information technology, it can produce quality human resources by improving educational conditions.

Education is a very important human need because education has a duty to prepare Human Resources (HR) for the development of the nation and state (Pradana et al, 2020). According to Astuti et al (2019) Education is an obligation of every human being that must be pursued to hold responsibilities and try to produce progress in knowledge and experience for the lives of every individual. Education is one of the efforts to improve the ability of human intelligence, thus he is able to improve the quality of his life (Saleh and Mujahiddin, 2020). Education is expected to be able to answer all the challenges of the times and be able to foster national generations, so that people become reliable and of high quality, with strong characteristics, clear identities and able to deal with current and future problems (Azhar, 2018). Education and skills are the main keys in gaining social status in community life (Lubis et al, 2019).

Where the progress of the era of information and communication technology in Indonesia can be adjusted with the implementation of school education management. For schools in Indonesia, improving the quality of an education is the main competition in the world of education. Improving the quality of education begins with the principal to commit to improving the quality of schools. The principal will be committed to improving the quality of schools by creating an Android-based school application. With the school application being able to facilitate efficient school management, the hope is to be able to improve the quality of school education.

Communication is the process of delivering messages by someone to other people to tell, change attitudes, opinions or behavior either directly orally or indirectly through the media. In this communication requires a reciprocal relationship between the delivery of messages and recipients namely communicators and communicants (Hasbullah, et al: 2018).

In North Rantau there is a public elementary school that has implemented a school management application, namely SDN 17 Rantau Utara. SDN 17 Rantau Utara received a response from the Labuhanbatu Education Office because it has been able to make an application for change in school education and this school management application must be improved again for the better. Schools implement education management applications within the framework of the school's strategic plan to achieve school goals and the school's vision and mission. Carrying out the implementation at the state elementary school, it is necessary to carry out an evaluation of the implementation of the school management application at the school. With the evaluation, you will be able to find out the obstacles and their solutions in implementing school management applications.

The application of an operating system that creates an open platform that allows for development that can be carried out in various activities that can be adapted to needs. The emergence of android is getting more and more interested so that it can be created from applications from the system. In android-based applications, one of the ready-made school management applications can be developed into a quality application.

To improve the quality of a school at SDN 17 Rantau Utara, it is necessary to implement a good school management application. In the current application system, it is increasingly developing in Indonesia, the application is an application designed that can be downloaded via Android which in the application can be used for elementary schools. Tjiptono & Diana (2003) is a concept that quality is considered as a more relative measure of the goodness of a product or service consisting of design quality and conformity quality. According to Prabowo, A., et al (2011) the application comes from the word application which can be interpreted as use and application. The application is built to be able to provide information that can make it easier for students, teachers, and parents. Information about schools can be accessed directly by installing the application through the play store first.

Nelson. S. W., & Guerra, P. L (2014), explained that school management is a school structuring process that involves human resources and other resources to achieve school goals. This is reinforced by Van Quaquebeke, Van Knippenberg, & Eckloff (2011) who explains that school management is a way of empowering resources to achieve school goals effectively and efficiently.

Henky W.P (2019) The definition of an application is a software unit that is intentionally created to meet the needs of various activities or jobs such as management activities, games, community services, and various other activities carried out by humans. The thing that underlies the making of this application is by referring to the conclusions of Hopkins research (2017) that the education management information system is expected to make it easier for parents to find out all information on school activities and can also be an opportunity to increase competitiveness in the surrounding environment.

The design of a school management application system that will be made, this application will provide information about schools, school profiles, school data using android-based applications. This application provides information on School Profile, vision/mission, list of teachers and staff, student data for the 2021-2022 school year, infrastructure, teacher performance, educational calendar, student attendance list. This

school management application system will make it easier for teachers, staff, students and parents to get information and access school-related information.

By formulating the problem that will be applied is how to implement an application-based school education management system. The author's aim is to find out how the application-based school management system is more advanced and developed, this writing can include, among others:

- a. The school management application system that will be made based on Android can be used on smartphones or Android devices to make it easier for school principals to manage schools.
- b. The application only creates student statistics, lists of teachers and staff, school profiles, teacher performance, education calendar, vision and mission, facilities and infrastructure. Student attendance list
- c. The android-based application system that will be designed can be used by teachers as application users, education personnel as application admins, school principals as assessors of teacher performance activities

II. Research Method

The research method that will be used in this study is research and data collection methods, application images are described so that they are easily understood by teachers, staff, students, parents and others. According to Sugiono, the research method is a scientific way to obtain data with the aim of being able to describe, prove, develop and discover knowledge, theories, to understand, solve, and anticipate problems in human life (Sugiono: 2012).

a. Research Methods

This research method must be carefully examined to find and obtain the data needed to facilitate researchers so that they can create a system that will be used. Where is the data obtained directly from the principal, teachers, staff, students and parents. This research method is compiled based on the results of the analysis of the model to be used is the waterfall where the research relies heavily on the authenticity of the data according to the facts at school

b. Method of Collecting Data

The data collection method can be used by researchers for making applications so that they collect data and information about the SDN 17 Rantau Utara school, with this data it can be developed into the system and support the final results of the study.

III. Results and Discussion

3.1 Results

Prior to the existence of a school management application system, this author will analyze a need by observing school activities at SDN 17 Rantau Utara that already exists and school information data, where the results of this researcher's observations in schools during the implementation of school management are still printed and sheet. paper so that it sometimes results in piles of data and wasted school data document sheets, so researchers will make a change in school management by making school management applications with the assumption that they are easy to use and effective in school implementation.

Implementation of a school management application system design from the first page design form, namely the application menu that makes choices about schools used by

principals, teachers, staff and parents according to the intended use consisting of teacher performance, school profiles, lists of teachers and staff, vision /mission, student statistics, infrastructure, student attendance list, educational calendar.



Source: author

Figure 1. Application Menu Page

School profile and school identity are very important to be able to find out where the elementary school is and where it is included, it is better to clearly state the name of the school, address, NPSN, status, form of education, ownership status, school establishment decree, date of establishment decree, operational permit decree, number school phone. With school data and school information through school management applications, parents can find out the school address and then can contact the school without having to leave the house, telephone number.



Figure 2. School Profile Page

The list of principals, teachers and staff is a profile of teachers in schools. With the profile of class teachers and subject teachers who educate, teach a science, guide, train, provide assessments, a teacher has a responsibility to his students. With the teacher profile, parents can contact their child's class teacher, and ask for information about the school.



Figure 3. List of teachers and staff

Each school has a goal, namely the vision and mission of the school in which SDN 17 Rantau Utara is to develop and develop the potential of students to become believers, knowledgeable, creative, and have noble character.



Figure 4. Vision and Mission

Understanding statistics as statistical data, student data for the 2021-2022 school year which includes the number of classes in each class, gender, religion.

SDN 17 RANTAU UTARA			
STATISTIK SISWA			
Data siswa tahun pelajaran 2021-2022			
tingkat		Jumlah	
Kelas 1		15	
Kelas 2		20	
Kelas 3		29	
Kelas 4 a		22	
Kelas 4 b		22	
Kelas 5		28	
Kelas 5 a		19	
Kelas 5 b		17	
Jenis kelamin		Jumlah	
Laki-laki		77	
Perempuan		90	
Jumlah		167	
Agama	Islam	Kristen	Katholik
Laki-laki	58	18	1
Perempuan	70	10	1

Figure 5. Students' Statistic

Understanding statistics as statistical data, student data for the 2021-2022 school year which includes the number of classes in each class, gender, religion.



Figure 6. Facilities and infrastructure

Filling out the online attendance form is the class teacher.

Figure 7. Student attendance

In the menu of the academic calendar of education, create an arrangement of activities in the learning process and scheduled in the educational calendar. Academic calendar of education that must be in accordance with the school calendar compiled by the class teacher of the field of study teacher and in accordance with the semester program



Figure 8. Educational calendar

The teacher's performance entering performance data on the main tasks and functions is selected between 1. Developing a curriculum, syllabus or learning implementation plan, 2. Carrying out learning activities, 3. Evaluating and assessing learning processes and outcomes, 4. Analyzing the results of learning. After it has been selected, click on the name of the activity carried out by the teacher, then click on the number of activities, fill in 1 activity, then click on the output in the learning side, and finally click on the time in the content of the time in the learning process.



Figure 9. Teacher performance

3.2 Discussion

From the results of the application above, the results show that management information systems can have a positive impact on school principals, teachers, staff, students, and parents. This is a supporting factor in supporting services and improving the

quality of schools. In the era of 4.0 in Indonesia, it is time for all public elementary schools to implement a school management application system to make schools more developed and obtain quality schools. In this case, there is a need for a school management information system because schools that already have applications improve the quality of services so that the educational services provided are more cooperative. This can be strengthened by (Tuban, et al 2004) stating that educational services must be more targeted and faster when using information technology because the use of information technology can have an impact on changes in work processes. It cannot be denied that the development of information technology is growing so fast that it can change the way people communicate.

IV. Conclusion

In this study it can be concluded that this application provides information on annual and universal programs, lesson plans, school profiles, teacher data, student statistics, educational calendars, teacher performance, vision and mission, facilities and infrastructure, student attendance lists. Where this school management application makes it very easy for principals to manage schools and teachers can also facilitate the learning process in the classroom, parents can also access school information.

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