Artikel

Analysis and Design of Web-Based ELC Parents Monitoring Application Information System Using Task Centered System Design Method

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ABSTRACT

Monitoring is an activity in controlling activities that are mutually sustainable. In the world of education, monitoring is one of the things that will be done to find out the academic development of a student. However, the monitoring that is usually carried out is information carried out between one and two people face-to-face or through short messages that have not been computerized. It's the same with ELC courses that are still updating via short messages such as whatsapp. Therefore, we need an application that can be a medium between parents and homeroom teachers. With this application, it is hoped that it can help homerooms and teachers in conveying various information about students' academics. And parents are facilitated with a real-time attendance system that can be seen in this application which was designed using the Task Centered System Design method. This method can provide any recommendations that are needed by the user. Testing on this system is carried out by direct interviews with the owner of the ELC as well as several employees who work at ELC who will use this application. Based on this test, the ELC Parents application can carry out its orders in inputting student attendance and computerized student assessments.

INTRODUCTION

Education is a compulsory activity in human life to be able to do. However, since there has been a pandemic that resembles the coronavirus or COVID-19, it has been a challenge for educational institutions in Indonesia. Many government policies such as Large-Scale Social Restrictions (PSBB), physical distancing, and social distancing are aimed at predicting the spread or transmission of the virus. With the government's policy being late, educational institutions such as schools, course institutions, colleges and universities are taking quick action to conduct online or online learning processes.

In response to this situation several course institutions, one of which is the One Heart One English course also implemented an online learning process that makes it easier for

students to implement a home learning system that does not require face-to-face contact with teachers who teach. However, it cannot be denied, if this situation makes it difficult in the information process for student ability development that is usually carried out by the progress supervisor at the Yayasan Satu Hati Satu Tujuan Foundation in a face-to-face meeting through Parents Teacher Meeting which is always carried out when students get to the next level. A progress supervisor will have an academic meeting with the teacher who teaches his class and parents face-to-face. However, the current situation is not possible for this meeting, which later became an impediment in the delivery of student development to parents.

I. METHODS

1.1 ELC

The English Language Conversation (ELC) is an English language course that offers courses in English from the age of 3 to 18. The ELC has several course-level programs such as Kinder, Primary, Junior, and Senior. This division is seen as the age of students who will later be grouped into one class in the same level.

In addition to Indonesian teaching staff, the ELC also provides several teaching services from outside Indonesia such as the Philippines, Austria, and the United Kingdom. With a native teacher, it is hoped that the ELC can provide more services in English learning to all students who have already run courses in the ELC.

1.2 Jasa

Services are services that can be interpreted as social activities for individuals and groups to obtain what is needed or desired by creating, providing and processing exchanges with other parties of value-added services. The characteristics that service providers must consider according to [1] are as follows:

a. Intangibility

It can mean a service that cannot be seen, felt, kissed, heard or even touched by customers before buying and consuming. When a customer purchases a particular service, it is certain that the customer uses or consumes the service.

b. Inseperability

Inseperability means that the service must first be sold before it can be produced and consumed at the same time and place.

c. Variability

Services also have the property of Variability because they are non-standardized outputs can be interpreted by the many variations in both shape, type, and quality that are associated to be produced and given to anyone, at any time, and anywhere.

d. Perishability

In this type it can be interpreted that the service cannot be saved and does not have a long period of time.

1.3 *Task Centered System Design* (TCSD)

The Task Centered System (TCI) method is a method used to identify task needs and user needs. The steps of this method include the following: [2].

a. Identification

The purpose of the identification phase is to identify the user's task to design an application user interface designed to follow the business workflow process.

b. User-centered Requirements Analysis

Aim to determine all system requirements to be designed based on the results of specific stages. This step can be used to decide what features to build into a system that has important or unnecessary tasks to include in creating a web-based application framework..

c. Desain as Scenario

The next step is the process of designing web-based application views. Design can be a mockup or visual image of a site. It has the original format of the website created in terms of the color and text used, and the layout of the website.
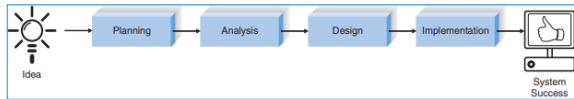
d. Walkthrough Evaluate

Stage in evaluating how a user or user experience (UX) works. Stage in evaluating how a user or user experience (UX) works. And at this stage it also evaluates the mockup that was designed earlier.

1.4 Methodology (Waterfall)

The SDLC system, also known as a waterfall, is a process in determining the flow of Information Systems (SIs) to provide support for every business need, design, development, and manufacture of systems for users.

There are several stages of the waterfall method according to [3], which can be seen as follows:

Picture 1: Methodology (Waterfall)

a. Planning

The planning stage is a stage where you must understand the need for an information system to be built with the project team's approach to building it.

b. Analysis

At the analysis stage, the answers will be given to all the questions about who can use the system to be designed and when is the right time to use this system.

c. Design

At this stage, it can be decided how a system operates to include existing hardware and software and network infrastructure items: user interface views, forms, and reports used in special programs, databases or files.

d. Implementation

The final stage in the methodology of the water tunnel is the implementation stage. Where the system is actually built or the stage that usually gets the most attention, because for the most part it's the longest major part and it costs the most for this development process.

II. RESULT

2.1 Company History

Yayasan Satu Hati Satu Tujuan is an informal English education foundation founded in 2009 by entrepreneur Anto Rejeki Purba who has customers spread across schools in Jakarta and outside Jakarta. The foundation is located on Jl. Green Lake Boulevard, Crown Rukan Block B No.5 Petir, Cipondoh, Tangerang, Banten 15147.

Starting from pioneering from the ground up with the help of no more than 5 employees, this foundation can stand by its goal of making children speak English loudly, boldly and wrongly. And hope that students can develop and hone their English skills more boldly and confidently.

Yayasan Satu Hati Satu foundation originally offered English lessons to schools that did not already have English teachers who could use English teachers' services from this place. As the business grew, this entrepreneur developed a business called ELC (English Language Conversation) which is a place where English learning courses have operating hours from noon to evening.

2.2 Corporate Vision and Mission

a. Corporate Vision

Superior in education and English skills, professional in teaching and institutional management, achievement and competence according to national and international standards.

b. Corporate Mission

1) Create a comfortable and enjoyable academic English learning environment.
2) Conducting effective and efficient teaching processes according to learning needs in particular and society in general.
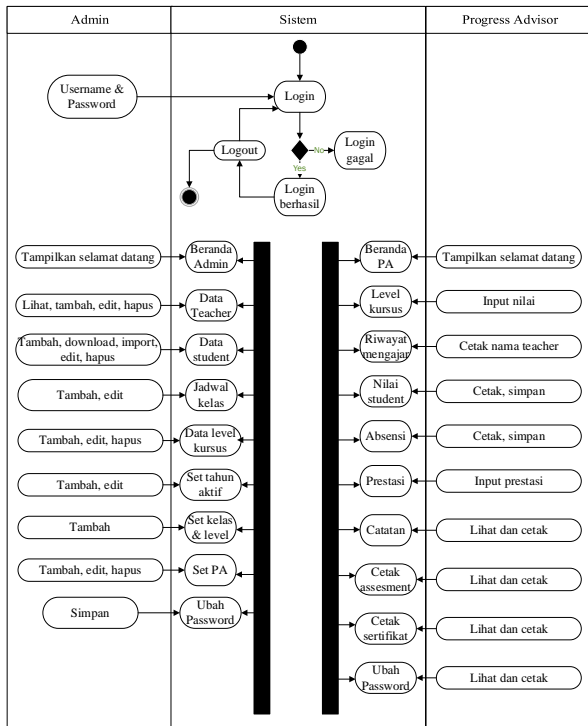
2.3 Existing System Procedures

Existing system procedures on the ELC still use a manual system where the progress supervisor still communicates information to parents via a short message about the tasks, exams, or information about the progress of students in the class. As for the current running systems, among other things:
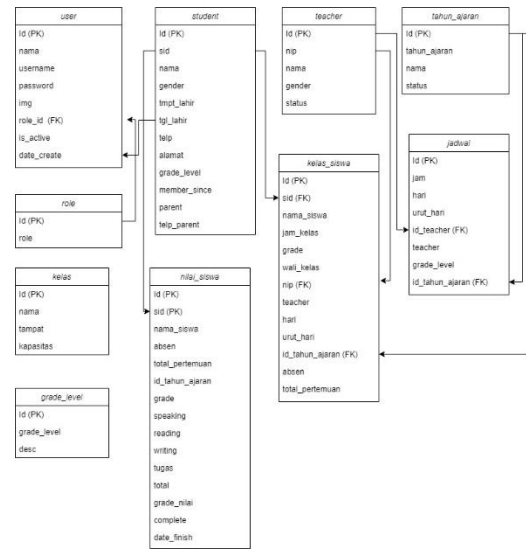
a. The teacher made matters of duty and examination and gave the matter to the student.
b. Students perform tasks or exams that have been given by the teacher.
c. The teacher examines and assesses the results of the tasks and exams that the student has done.
d. Teacher made an assessment assessment report which will later be given to the progress advisor (PA).

e. The progress advisor shall record the results of the assessment given by the teacher, and prepare an assessment report card or certificate at the end of each level taken by the student.

f. The progress advisor gives the report card or certificate to the parents.
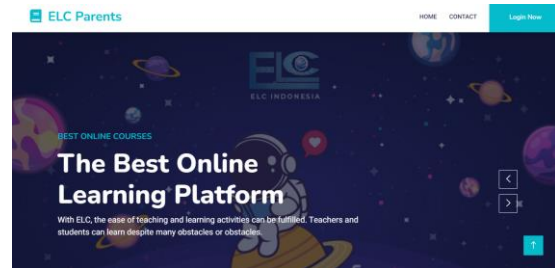
2.4 Proposed Activity Diagram

Picture 2: Proposed Activity Diagram

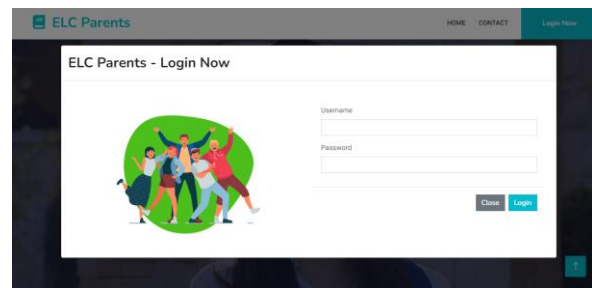Picture 3: *Class* Diagram Proposed

2.6 System layout

The following is a view of the completed website interface:
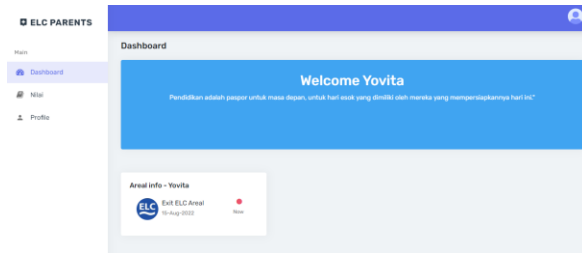

Picture 4: Dashboard Menu

The above page displays the home page of the ELC Parents.

Picture 5: Login Page

The Login Page image shows the view when Parents are prompted to log in to the ELC Parents application.

2.5 Class Diagram Proposed

Picture 6: Student Attendance Page when checking in

In the ELC Parents application, parents are made easier when they see their son/daughter's whereabouts while taking courses in the ELC.

III. CONCLUSION

Based on the results of research and observations already conducted at the One Heart One Destination Foundation (ELC) aimed at improving the quality of work for those using this system, the authors draw the following conclusions:

The current processing of student scores at the Yayasan Satu Hati Satu Tujuan (ELC) is still carried out manually by writing the value data into paper, thus creating a considerable archive so that it will have difficulty finding the data that is wanted and allowing the data to be stored Lost or damaged.

The absentee processing process that is usually the progress advisor gets every day by asking the teacher who teaches that day and recording it manually. With this built-in system, the progress supervisor is eased to get absentee data because the absentee charging will be done by the teacher.

Create computerized systems using PHP and MYSQL programming languages.

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BIOGRAPHY

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