

Design of Web-Based After School Tutoring Information System
(Case Studies in “SiPintar” After School Tutoring Mantingan)



Article Publication

Submitted as a Partial Fulfillment of the Requirements for Getting Bachelor Degree of
Department of Informatics in the
Faculty of Communication and Informatics

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DEPARTMENT OF INFORMATICS
FACULTY OF COMMUNICATION AND INFORMATICS
MUHAMMADIYAH UNIVERSITY OF SURAKARTA

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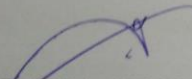
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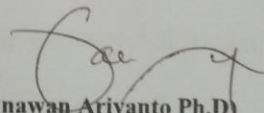
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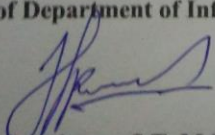

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1 Submitted as a Partial Fulfillment of the Requirements for Getting Bachelor Degree of Department of Informatics in the Faculty of Communication and Informatics By:

CHANDRA TRI SUSENO NIM: L200102015

1 DEPARTMENT OF INFORMATICS FACULTY OF COMMUNICATION AND
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RATIFICATION SHEET A Scientific Publications with title Design of

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Design of Web-Based After School Tutoring Information System (Case Studies in “SiPintar” After School Tutoring Mantingan)

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Chandra Tri Suseno. L200102015 Design of Web-Based After School Tutoring Information System (Case Studies in “SiPintar” After School Tutoring Mantingan). Study Programs at the Department of Informatics, Faculty of Communication and Informatics Muhammadiyah University of Surakarta.

This study aims to (1) Establish a media information website that can provide information to the public. (2) Building a website can do the management of information media student data accurately and precisely. (3) To assist and facilitate the process of monitoring the progress of student learning. Methods this study uses observers, interviews, and a literature method, this method for obtaining accuracy and validation of precise data, in order to get maximum results for the user. The results show the implementation of information media websites that can provide information to the public, the web pages were made in accordance with the design. Not only coding programs, web pages are also designed so that it looks attractive. In addition to the program administrator can edit, delete, and can add to the list of students who want value fed by name and subjects taken by students. The results of subsequent research, students and parents can access the value of the development and learning of students accessing material simply by entering your name and email address.

Keywords: Design, Media Information, SiPintar, Web-Based

INTRODUCTION

After school tutoring can be regarded as an extra support for students to get better results so that learning becomes easier. Sometimes there is a lesson in a school that poorly understood by students and tutoring comes as a solution that is as a means of consultation for students' better understanding of the lesson.

After school tutoring can be an appropriate means to understand the lessons that have not been understood, fun learning method certainly be the one of the after school tutoring characteristic. However, students are confusing about the place to get the information of after school tutoring. Media websites are now experiencing rapid development as a medium for data management, and can monitor learning activities such as attendance and schedule so that parents can monitor their progress during learning activities.

"SiPintar" After School Tutoring, founded in August 2010 by Mr. Ridwan Mahmudi in Depok as a pilot project. At first, the faculty has a 6 teacher with 20 students and now the number has reached more than 100 students along with better facilities. For expansion, it will open a branch "SiPintar" after school les Mantingan on July 10, 2013.

This branch is still using manual systems to handle their new students, so it takes a little bit. This course requires an organized system, if it is supported only by manual systems, efficiency and effectiveness in the presentation of this information will not be achieved and

will have an impact on the slow service to the students themselves.,

After learning this, the researchers will design and build a web-based information systems. It is expected the efficiency and effectiveness of the presentation of information will be overcome.

LITERATURE REVIEW

a. Web

World Wide Web (WWW) or commonly referred to as the Web, is one of the resources that the internet is growing rapidly. Web information is distributed through hypertext approach, which allows a short text to be a reference to another document open. With this hypertext approach one can obtain information by leaping from one document into another document. (Eriko Dwi, 2009)

b. Information

Raymond McLeod (1995) in thesis Bangun Teja S defines information as data that has been processed into a form that is more meaningful for the recipient. Information is data that is processed into a useful form and be meaningful to the recipient. Usefulness of the information is to reduce uncertainty in the decision-making process about a situation

c. PHP

PHP is a standard language used in the world of websites. PHP is a scripting programming language in the form of money placed on the web server. If seen from the history, beginning PHP was created from ideRasmus Lerdof that make a perl script. The script is meant to be used as a program for himself. But, then again so was developed into a language called "Personal Home Page". This is the beginning of the emergence of PHP to date. (Nugroho, 2009).

d.CodeIgniter

CodeIgniter is an application open source form framework with MVC (Model, View, Controller) for building dynamic websites using PHP. Where Model and interactions associated with the data to the database. View in touch with everything that will be displayed to end-users, and controller acts as a data link and view. (Basuki. 2014: 12)

e. Bootstrap

Bootstrap CSS Framework is based on open source made by twitter in order to facilitate the manufacture of the web page. In the many features offered bootstrap ie Responsive layouts, buttons, forms,

tables and components - components of other javascript.

METHOD

The author uses the method of observation and experiment in this study. The stages of the research can be seen in Figure 1.

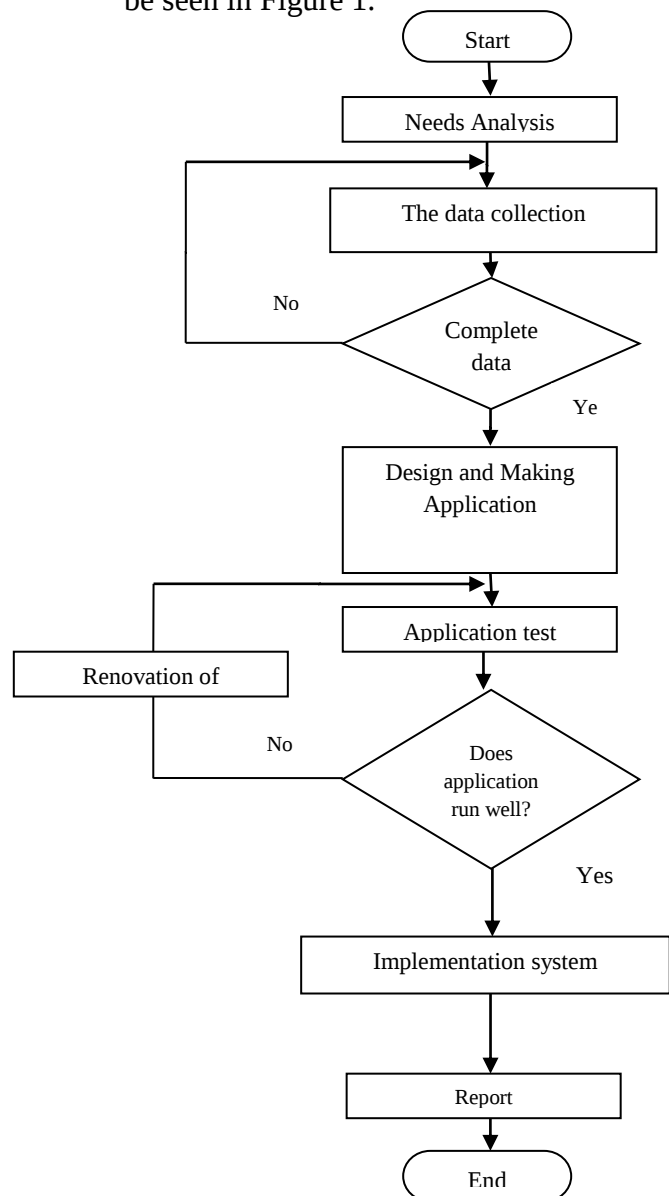


Figure 1. Flow of research

- a. Starting from the needs analysis. At this stage the researcher analyzed a variety of needs such as hardware and software requirements for this design as well as information relating to the researcher would do in this thesis.
- b. Collecting data and needs. At this stage the researcher collected data as well as a variety of needs that will be used in the design and manufacture of the system will fit the needs analysis.
- c. Checking the data and requirements. At this stage, if all the data and also supplies have been met, the researcher will proceed to the stage of design and manufacturing systems.
- d. Design and manufacture of the system. At this stage the researcher to design and manufacture the system in accordance with the data and also the needs that have been obtained.
- e. Testing the system. After the researchers finished the design and manufacture of the system, the next step is to test the system is running well or not, if the system made an error it will be repaired and re-testing the system.
- f. Implementation of the system. At this stage the researcher is ready to implement the system that has been designed and manufactured after

successful testing of the system and there is no error.

- g. Report generation. After completion of all stages of the analysis to the implementation of the system, the researchers will create a report of all matters relating to research conducted.

The student flowchart like in the Figure 2

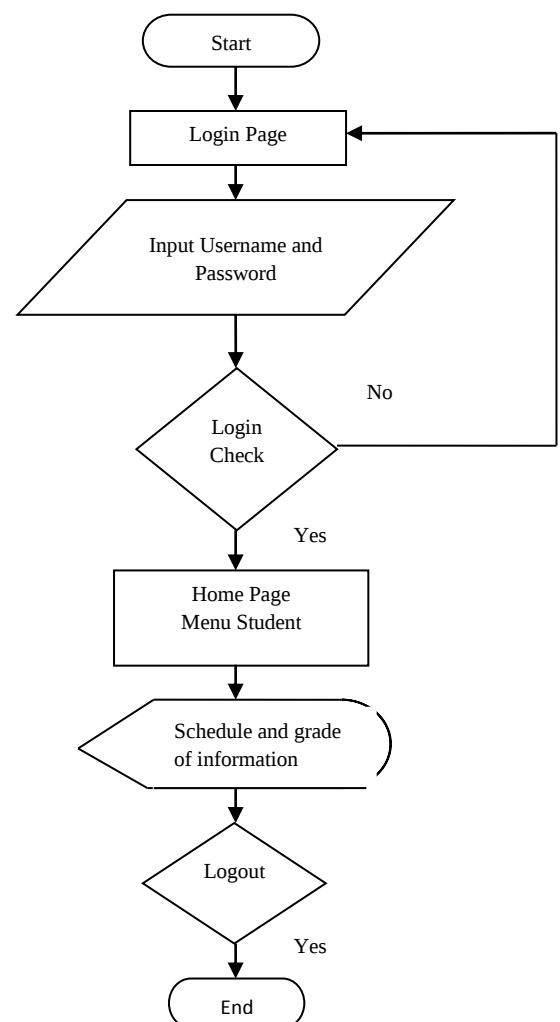


Figure 2 The flowchart of student.

From Figure 2 it can be described as the flow of students following flowchart:

a. Login page, the page that is used for user login.

b. Username and Password, the page where the user is the student enter a username and password that will be used to access the student pages that contain additional content such as a check score, downloaded material, check the schedule.

c. Check login, username and password will be matched by the system, if successful it will fit into the Student Page if not then the system will return to the Login Page.

d. Home page menu student, if the login is successful then it will go to the home page menu.

Admin Flowchart like in the Figure 3.

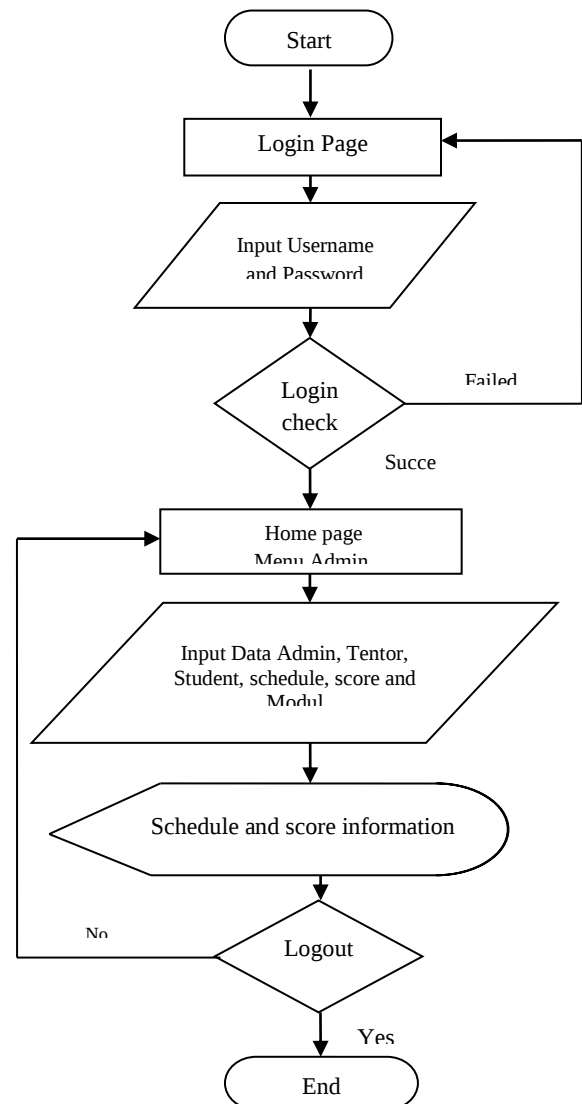


Figure 3 Admin Flowchart

From Figure 3 it can be described as the flow of students following flowchart:

a. Login page, the page that is used for user login

b. Username and Password, username and password: used to enter admin

pages, the username and password that is different than the student password.

c. Check login, username and password will be matched by the system, if successful it will fit into the admin page if not then the system will return to the Login Page.

d. Home Page

To display menus that relate to student data and information.

e. Input Data Admin, Tutor, Student, schedule, score and Modul. To update the data from the admin, tutor, students and information. admin can remove add or edit the data on this page.

f. Schedule and score information

Admin can add, delete and edit the information that will be shown to students

RESULT AND DISCUSSION

a. Program Testing

The process of testing system done by inputting data and checking on each menu that has been created. This check is done by the researchers themselves. When all processes have been successfully carried out and run smoothly, then the system information of SiPintar web-based after school tutoring is ready to use. From the portal with black box testing has been done by researchers obtain the following results:

Testing with table black box on the front page is shown in Table 1.

Table 1. Black Box Student Pages

No	Function	Status	
		Agree	Disagree
1	Page views home	√	
2	Page News	√	
3	Page Program Guidance	√	
4	Page Login	√	
5	Page contact	√	
6	Registration page	√	
7	Download page content	√	
8	Pages schedule	√	
9	Page check the score	√	

Table 1 Black box Student Pages

Table 2. Black box admin page

No	Function	Status	
		Agree	Disagree
1	Admin main page	√	
2	Dashboard	√	
3	Data input page	√	
4	Display edit data	√	
5	Delete student data	√	
6	View student data	√	
7	Edit student data	√	
8	Logout admin	√	

Table 2 Blackbox Admin Pages

b. Testing the System with a Questionnaire

No	Element of Evaluation	Alternative Answer				
		S	S	N	K	T
1	Display of website is interesting	4	2	4	0	0
2	Website easy to use	2	5	3	0	0
3	Information about SiPintar is complete	2	6	2	0	0
4	System can help the student to see the schedule	4	4	2	0	0
5	System can help the student to download material	5	4	1	0	0
6	System can help the student to see the results of their study	1	6	3	0	0

Table 4.3. Tabulation of Student SiPintar

Testing with this questionnaire addressed to 10 students SiPintar. The

results of the questionnaire are shown in Table 4.3

Testing is done with a questionnaire to determine the assessment guide users towards Design of Web-Based After School Tutoring Information System (*Case Studies in “SiPintar” After School Tutoring Mantingan*).

From table 4.3 there are six criteria that are used as an assessment of the website users, and users just stating his opinion on the application by choosing whether SS = Strongly Agree, S = Agree, N = Neutral, KS = Disagree, and TS = Strongly Disagree.

Answer	Question					
	P1	P2	P3	P4	P5	P6
SS	40 %	20 %	20 %	40 %	50 %	10 %
S	20 %	50 %	60 %	40 %	40 %	60 %
N	40 %	30 %	20 %	20 %	10 %	30 %
TS	0 %	0 %	0 %	0 %	0 %	0 %
STS	0 %	0 %	0 %	0 %	0 %	0 %

Table 4.4 Result of Data Questionnaire

The results of the questionnaire data calculations are shown in Table 4.4.

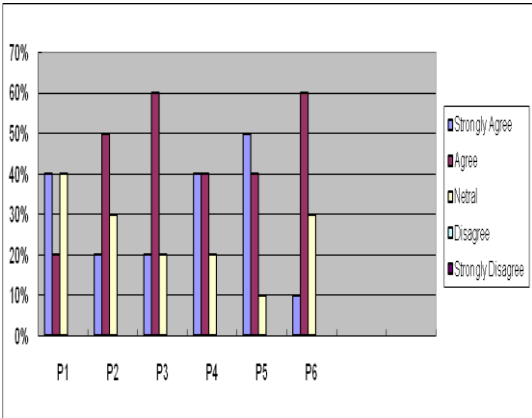


Figure 4.17 Student Respondent Graphic

Based on the figure above can be concluded that the application of this system can work well, especially in terms of functional which can facilitate students in obtaining information.

Discussion

The Design of web-based after school tutoring information system is an application that will help simplify the admin to manage the data that will be addressed to students and visitors to the website online. System information is accessible to anyone, anywhere and anytime as long as there is internet connection. web-based after school tutoring Information system is an application built to improve services to students and administrators in the management of data. Design of web-based after school tutoring Information system there is certainly some

advantages and disadvantages when compared to similar applications.

The advantages of Web-Based After School Tutoring Information System are :

- 1.The public may information about SiPintar.
- 2.Improve services SiPintar After School Tutoring.
- 3.Promote SiPintar After School Tutoring.
- 4.Students can see the score of learning outcomes in SiPintar After School Tutoring online.
- 5.Participants received information about the mentoring program in SiPintar After School Tutoring.

Lack of Web-Based “ SiPintar” After School Tutoring Information System are :

- 1.Display Web-Based After School Tutoring Information System still simple that still needs much improvement.
- 2.The security system is still inadequate.

Conclusion

From the results to agency website creation education, the conclusion is as follows:

1. The website is an excellent medium for providing information services to the public and students SiPintar because it can be accessed anytime and anywhere.
- 2.Website provide information to management SiPintar about community needs, so it can be used as fill in decision making.
3. Procurement website is not costly.

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