Decision Support System for Teacher Decision Following Teacher Professional Education Senior High School East Kalimantan Province with Web-Based Smart Method

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Abstract- Teacher Professional Education for Senior High School in East Kalimantan Province is higher education after an undergraduate education program that prepares students to have jobs with special skills requirements to become teachers. The problems in registration that occur at the East Kalimantan Provincial Education and Culture Office are: The calculation of the test data is still calculated manually, so it is necessary to build a Decision Support System for Determination of Participants in the Professional Teacher Education for Senior High School in East Kalimantan Province using the Web-based SMART Method. Determination Decision Support System Participating in Teacher Professional Education for Senior High School in East Kalimantan Province with the SMART Method Web-based meets the criteria for a good website or web application. Can handle the calculation process once the test has been executed. In the testing results it can be concluded that the results of testing the questionnaire questions to ten (10) respondents can be concluded that more than 78.2% of respondents answered that the Determination Decision Support System Participating in Teacher Professional Education for Senior High School in East Kalimantan Province with the SMART Method Web-based meets the criteria for a good website or web application. can handle the calculation process once the test has been executed. In the testing results it can be concluded that the results of testing the questionnaire questions to ten (10) respondents can be concluded that more than 78.2% of respondents answered that the Determination Decision Support System Participating in Teacher Professional Education for Senior High School in East Kalimantan Province with the SMART Method Web-based meets the criteria for a good website or web application.

Keywords- Decision Support System, Determination of Teacher Professional Education, SMART Method

I. INTRODUCTION

Teacher Professional Education for Senior High School in East Kalimantan Province is higher education after an undergraduate education program that prepares students to have jobs with special skills requirements to become teachers. (Hadisaputra, 2012; Hidayat, 2010) Teacher professional education must be taken as long as 1-2 years after a candidate has graduated from an undergraduate education program. (Teacher Professional Education Program) is a replacement program for deed IV which did not take effect starting in 2005 (Faridi, 2015)

The number of teachers who have registered to take part in is required to carry out the selection stage to select participants who are competent in their fields. (Gusti, 2017) The selection carried out is the completeness of the documents, length of teaching, and the profession taken. to carry out the program (Ardhana, 2012)

The selection process is currently still being carried out by being determined directly by the head of the East Kalimantan Education Office and still using manual, non-computerized file collection which can cause the selection process to be less efficient.

Therefore, a computerized system is needed that can help the Head of the East Kalimantan Education Office to obtain a good decision as needed. Decision support systems can be an alternative solution to these problems using the SMART method.

This SMART method research is because, this method is a flexible and simpler method to be used in decision making to help the East Kalimantan Education Office when admitting participants.

The description above becomes the background for the consideration for the title "Decision Support System for Determining Teachers Who Join Professional Education for Teachers for Senior High School in East Kalimantan Province with the Web-Based SMART Method."

II. REVIEW LITERATURE

A Decision Support System

According to Pratiwi (2016) Decision Support System (DSS) is an interactive computer-based system that helps decision makers by utilizing data and models to solve unstructured problems. (Arief, 2011)

Decision Support System (DSS) supported by a computer-based information system can help someone improve their performance in decision making. (Hermawan, 2013) A manager in a company can solve semi-structured problems, so managers and computers must work together as a problem solving team. in solving problems in semi-structured areas (Davis, 2010)

B. Teacher Professional Education

According to Azmi (2010) Teacher Professional Education is higher education after an undergraduate program that prepares students to have jobs with special skill requirements. (Hakim, 2009; Hutcheon, 2016) Thus the program is a program held for undergraduate degrees. 1 Education and S-1 / D-IV Non-education who have the talent and interest in becoming teachers, so that they can become professional teachers in accordance with national education standards and obtain educational certificates.
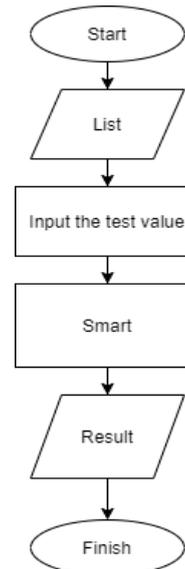
C. SMART (Simple Multi Attribute Rating Technique)

According to Pratiwi (2016), the Simple Multi Attribute Rating Technique (SMART) is a multi attribute technique or method in the decision reversal system. This method was developed in 1977 by Edward. Decision Maker must select different objects and have the same opportunity, adjusted to the goals that have been formulated. Each of these objects has a character, component, or criterion in the decision.

III. RESEARCH METHODS

A. .Flowchart

It can be seen in Picture 1, this visitor will input the account registration first, then enter the test value then calculate using the SMART method, after that the value results are issued and finished.
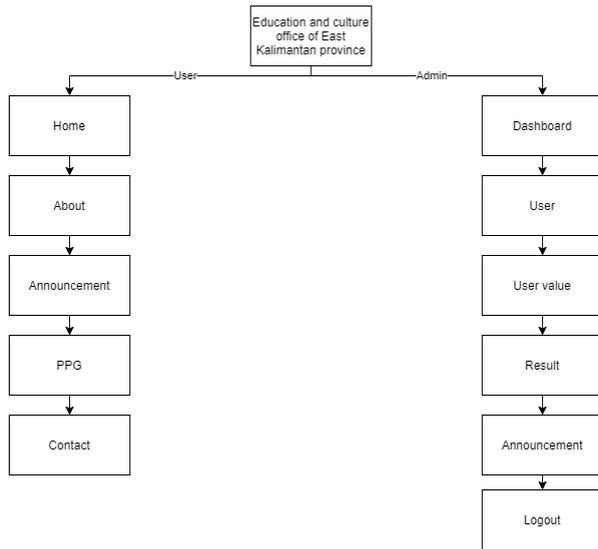

Picture 1. Flowchart

B. Sitemap of East Kalimantan Provincial Education Office

In Picture 2, the existing sitemap explains how the structure of the Decision Support System for Determining Professional Teacher Education for Senior High School, East Kalimantan Province, based on a Website.

1. Admin back end page consists of Dashboard, User, User Value, results, Announcements and Logout.
2. Admin User page contains user data at the Education and Culture Office of East Kalimantan Province.
3. Admin page User value contains user value data at the Education and Culture Office of East Kalimantan Province.
4. The Announcement Admin page contains announcement data in the East Kalimantan Provincial Education Office.
5. Admin Logout page is a logout admin page.
6. Front end user page consists of Home, About, Announcements, and Contact.
7. The Home page contains the home page of the East Kalimantan Provincial Education and Culture Office.
8. The Announcement page contains the announcement at the East Kalimantan Provincial Education Office.
9. The About page contains what is at the Education and Culture Office of East Kalimantan Province.
10. The page contains the flow at the Education and Culture Office of East Kalimantan Province.
11. The Contact page contains contacts at the East Kalimantan Provincial Education and Culture Office.
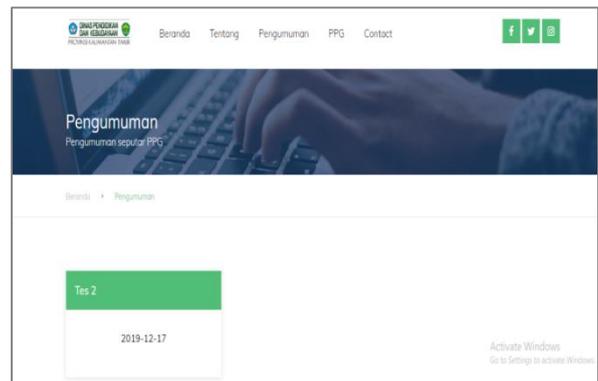
Picture 2. Sitemap of the Education and Culture Office of East Kalimantan Province

IV. RESULT AND DISCUSSION

The results of implementation based on analysis and design are as follows:

A. Main page

Picture 3 shows, the main page view of the East Kalimantan Provincial Education Office, where the user is first redirected to this page. The main page consists of the home menu, menu, about menu, announcements menu, and contact.

Picture 3. Main page view

B. About page

Picture 4 is an about page display, which contains all the identifying information about from the Education and Culture Office of East Kalimantan Province.

Picture 4. About Page View

C. Announcement page

Picture 5 is a contact page display, a contact page containing contacts, addresses, e-mails at the Education and Culture Office of East Kalimantan Province.
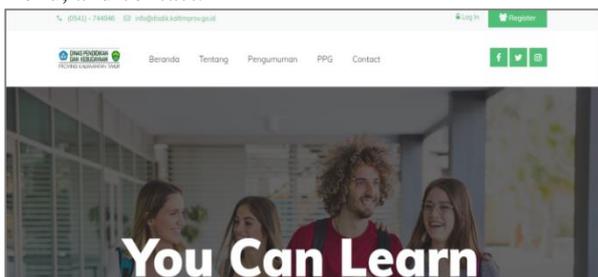

Picture 5. Announcement Page Display

Picture 6 is a display of the Announcement Page, an announcement page containing the results of the selection test at the Education and Culture Office of East Kalimantan Province.

D. page

In Picture 6, the page displays, the page contains the flow and general requirements for the Education and Culture Office of East Kalimantan Province.
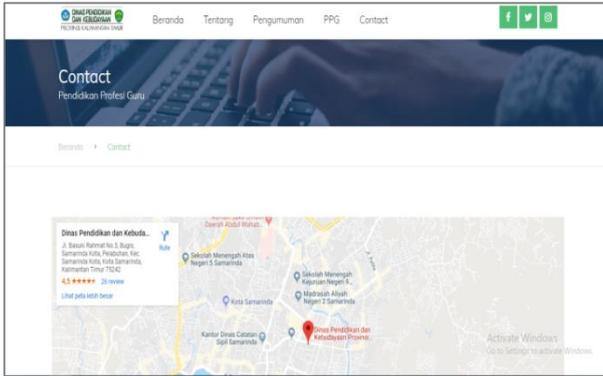

Picture 6. Page Views

E. Contact page

In Picture 7, is a contact page display, a contact page containing contacts, addresses, e-mails at the

Education and Culture Office of East Kalimantan Province.

Picture 7. Views of the Contact Page

F. Admin Login Page

In Picture 8, the login admin page displays the NIP and password that must be filled in order to use this system. It is intended that users who are not entitled to use this system cannot use it. After the user enters the nip and password, it will be checked whether the name and password are correct or incorrect. If correct, the user will enter the admin page and can use this system. If it is wrong then the user cannot use this system.

Picture 8. Admin Login Display

G. Admin User page

In Picture 9, is a display of the Admin User page, this page is about data information from the user, there are data such as no, nip, participant no, full name, study program, qualifications, study program, subject, photos. On this page the admin can add, modify and delete user data.

Picture 9. Admin User Page Views

H. User Value Admin page

In Picture 10, the admin page displays user values, this page is about data information from user values, there are data no, name, nip, participant no, teaching period, education, pre-test, photo test. On this page the admin can add, change and delete category data.

Picture 10. Display User Value Admin Page

I. Results Admin Pages

In Picture 11, the admin page displays the results, this page is about data information from the results, and there are data numbers, names, IDs, participant numbers, teaching period, education, pre-test, and photo test. On this page the admin can add, change and delete category data.

Picture 11. Display Admin Results Page

J. Announcement Admin page

In Picture 12, the admin page displays the announcement, this page is about data information from the results, and there are data numbers, titles, dates, and contents. On this page the admin can add, change and delete category data

Picture 12. Announcement Admin Page Display

V. CONCLUSION

With this system, it can assist in calculating test scores on admissions, especially the use of the SMART method in solving decision making. With this decision support system, it can assist operators in making the right decisions in determining the selection of new members who are competent in their fields.

It is hoped that this system will make it easier for operators to enter the data of potential participants more easily because they do not have to enter data in the operator's room, but can access this system anywhere on the condition that it is approved by other operators and leaders. It is hoped that this decision support system will be made on both Android and IOS. Because this system will later be able to make it easier for operators to enter data and perform calculations by downloading the application on their respective smartphones and can be used outside the room on the condition that it is approved by other operators and leaders.

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