Developing School Information Program: Integrated Management System based on Character Value at SMP Negeri 9 Tapung

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ABSTRACT

This research aims to develop a student data management system at 9 Tapung Junior High School (SMP) Negeri 9 Tapung, which has not documented using a computer or school web using text-based programming languages like HTML, JavaScript, CSS, and PHP. The student information system design at SMP Negeri 9 Tapung in its manufacture uses a literacy methodology where each phase can be carries repeatedly until it gets the desired results. The phase of system manufacture is the investigation, analysis, design, and implementation. To make this application, the author uses PHP and MySQL. This development research results create a student information system application that can display school data, student data, graphics form, and development, including data on honesty and discipline. The system also displays the student interests and talents observed, extracurricular activities, student violations, and achievement. This application still needs development, refinement, and the addition of features. Suggestions and criticism need from all related parties to create a better and structured information system to improve the quality and character of SMP Negeri 9 Tapung.

INTRODUCTION

Student components' existence is very much needed, especially that students implement an educational activity at school, which is both a subject and an object in transforming knowledge and essential skills. To manage student data to make it easier to carry out activities at Junior High School (SMP) Negeri 9 Tapung, the author made it a research place because the program information system about student work in the school has not documented using a computer or school website.

The student information system design at SMP Negeri 9 Tapung in its manufacture uses a literacy methodology where each stage or phase can repeatedly carry out until it gets the desired results with stages, namely investigation, analysis, design, and implementation. To make this application, the author uses PHP and MySQL. The resulting applications include school data, student data, report data, and student graph data, including data on the development of honesty, discipline, student interests and talents observed during counseling, extracurricular activities, student violations, achievement, and talent.

In this case, the authors chose SMP Negeri 9 Tapung, Tapung District, Kampar Regency. The school is in great demand by the people here, especially the people in Tapung. It can see from the increasing number of students. The aims and objectives of this research are to build an effective and efficient student administration information system using HTML (HyperText Markup Language) programming

language that can be accessed locally on a local host in a Local Area Network (LAN) network system. are: To design a student information system at SMP Negeri 9 Tapung, Tapung District, Kampar Regency.

METHODS

The type of data used in this research is qualitative data. Qualitative data is data in the form of words, not in the form of numbers. Qualitative data obtained through various data collection techniques, such as interviews and analysis of documents recorded in field notes (transcript). The data source used by the authors in this study is secondary data.

Secondary data is data obtained through intermediaries or indirectly so that the researcher needs to find or collect. In conducting research, information and data are needed as the basis for system development to support the discussion's validity in this research report—information and data obtained from the literature study, observation, and documentation.

According to Bogdan and Taylor (in Iskandar, 2013; 221), data analysis is a process that looks for formal efforts to find themes and formulate ideas as suggested by the data and as an effort to assist with those themes and ideas. The data analysis used is a descriptive-analytic method, which describes the data collected in words, pictures, and not numbers. Data derived from manuscripts, interviews, field notes, documents, and more. Are then describing to clarify reality or reality. The qualitative data analysis techniques used as follows:

Data collection

The collecting data is the research process stage, where the researcher applies specific scientific methods and techniques to systematically collect data for analysis purposes—the data collected in this research carrying by several methods, including observation and document reviews. The used data include school profile, school history, teacher data, student data, organizational structure, and more.

Data reduction

Reducing data means summarizing, selecting the main things, focusing on the essential things, looking for themes and patterns, and removing unnecessary. Data reduction can make by abstracting it. Abstraction attempts to make a core summary, process, and statements that need to remain in the research data. In other words, the data reduction process is carried out by researchers continuously when conducting research to produce core notes from the data obtained from the results of data mining.

Data Presentation (Data Display)

Data presentation is a structured collection of information that gives the possibility of concluding. The goal of data visualization is to communicate data or information clearly and effectively to readers. In this research, data is visualizing in a chart, infographic, diagram, or map.

Conclusion / Verification

Conclusion or verification is the final stage in the data analysis process. In this section, the researcher expresses conclusions from the data that has been obtaining. This activity intends to find the meaning of the data collected by looking for relationships, similarities, or differences. Drawing conclusions can finish by comparing the suitability of the research subjects' statements with the meanings contained in the basic concepts in the study.

RESULTS

Current System Analysis

The current system case is a description of the flow of the system that is running in school about how schools provide assessments to students; for more details, it can be seen in Figure 1 below:
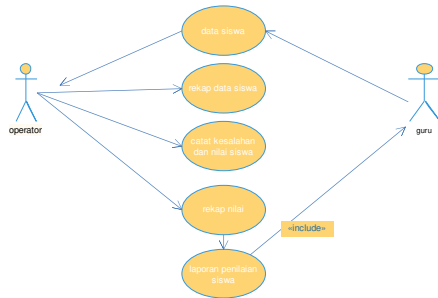
Figure 1. Current System Case

Old System Evaluation

After seeing the flow of the use case that is currently running, it can evaluate several things that are considered essential, such as 1) It is necessary to have an information system that stores data in a database; 2) Information systems are needed so that operators no longer need to record assessments

Proposed New System

The new use case diagram will explain the steps carried out by each actor in the information system; more details can see in Figure 2 below.
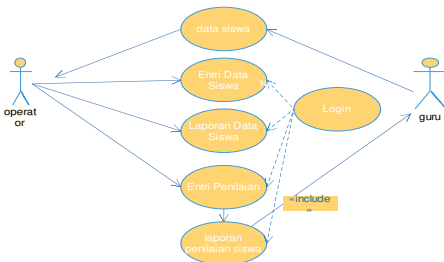
Figure 2. New System case

Class Diagram

The class diagram is a display between the relationships from the database that we will create. This class diagram is a data container for the data that we will input. For more details, we can see in Figure 3:
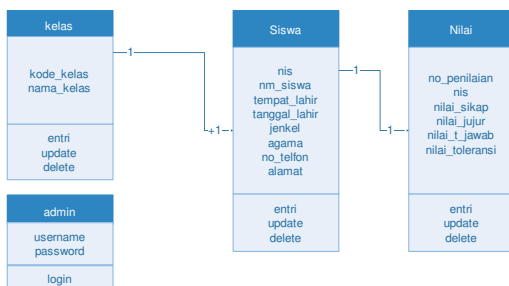
Figure 3. Class Diagram on system

Activity Diagram

Activity Diagram is a description of the activities of actors; here, the author only displays the activities of school operators; for more details, see the table below:
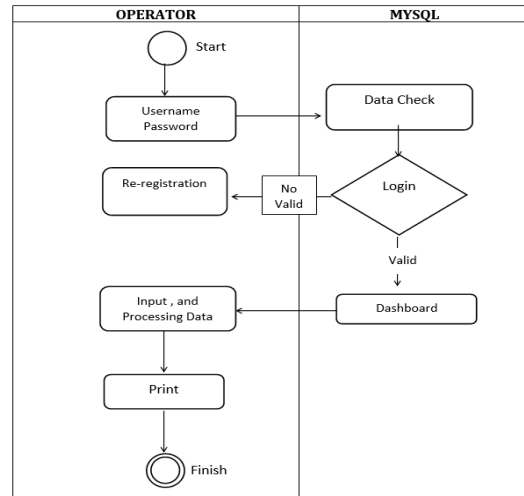
Figure 4. Activity Diagram on system

System Testing

Admin Login Form
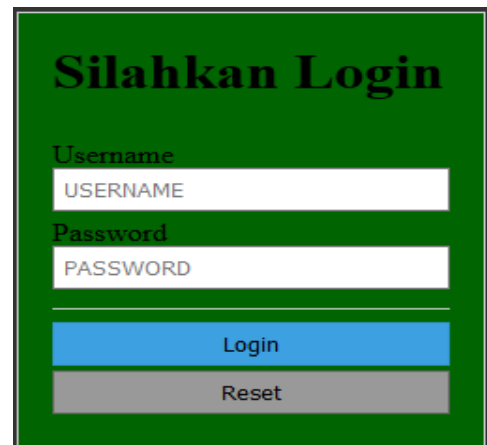
Figure 5. Admin Login Form on system

Admin Dashboard

Figure 6. Admin Dashboard on system

School Profile

Figure 7. Junior High School Profile

Add New User Form

Figure 8. Add New User Form

Deleting User

Figure 9. Deleting User

Student Data Display Form

Figure 10. Student Data Display Form

Changing Student Data Form
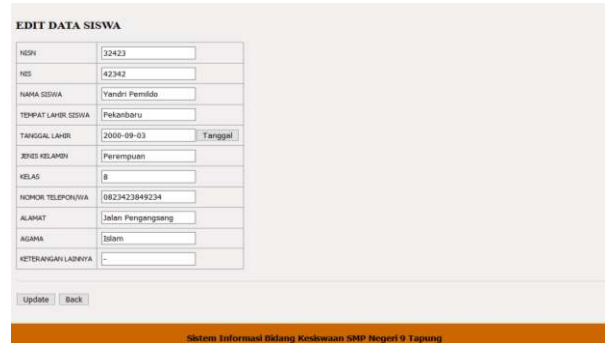
Figure 11. Changing Student Data Form

Showing Teachers Form

Figure 12. Showing Teachers Form

Add and Editing Teacher Data Form

Figure 13. Add and Editing Teacher Data Form

Honest Attitude Character Assessment Form
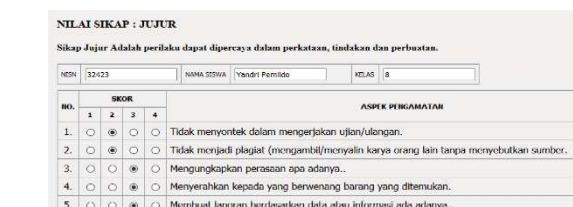
Figure 15. Honest Attitude Character
Assessment Form

Discipline Assessment Form

Figure 16. Discipline assessment form

Responsibility assessment Form

Figure 17. Admin Login Form on system

Tolerance Assessment Form

Figure 18. Tolerance Attitudes Form

Mutual Character Assessment Form

Figure 19. Mutual Character Assessment Form

Polite Assessment form

Figure 20. Polite assessment form

Self-Confidence assessment form

Figure 21. Self-Confidence assessment form

Character Value Form

Figure 22. Character Value Form

Form to print Students Character Value

Figure 23. The print students character value

Form to print student data

Figure 24. Print student data

DISCUSSION

Based on Permendikbud No. 24 of 2016, regarding core competencies and essential competencies, one of which is Core Competency 2, there are 7 (seven) attitudes. Processing the results of the attitude value for the predicate "Very Good" is if students tend to have an excellent attitude in most subjects, it can assume that these students' predicate is very good. Meanwhile, if students do not have any notes in the journal, these students' attitudes can be assumed to be "Good" (Guidelines for Assessment by Students and Education Units for Junior High Schools; 39). The formulation indicators of student attitude consisting of honesty, discipline, responsibility, cooperation, cooperation, tolerance, courtesy, and self-confidence (see Guidelines for Assessment by Students and Education Units for Junior High Schools; 35).

Tabel 1. Student Attitude Indicators

Attitude and Understanding	Indicator
Honest Honest attitude is responsible behavior in words, actions, and deeds.	- The students must not cheat on taking exams or tests. - It does not become plagiarism (taking/copying other people's work without mentioning the source). - Express feelings as they are. - Turning over to the authorities, the items he finds. - Create reports based on data or information as is. - The students must acknowledge mistakes or deficiencies that the students have.
Discipline A disciplined attitude is an action that shows orderly behavior and complies with various rules and regulations.	- Arrive on time. - Obey the rules or regulations with the school/school. - Work on or collect assignments according to a predetermined time. - Follow the rules of right and correct written language.
Responsible It is a person's attitude and behavior to carry out his duties and obligations that he should do towards himself, society, the environment (natural, social, and cultural), the country, and God Almighty.	- Carry out individual tasks properly and accept the risk of the actions taken. - The students must not blame/accusing others without real evidence. - The students must return borrowed items. - Acknowledge and apologize for wrongdoing. - The students must keep promises and not blame others for the mistakes of our actions. - Carry out what has said without being asked.
Tolerance Tolerances are attitudes and actions that respect a variety of backgrounds, views, and beliefs	- Do not bother friends with different opinions. - Accept an agreement even if it differs from his opinion. - Can accept other people's shortcomings. - Able and willing to work with anyone with a variety of backgrounds, views, and beliefs. - Do not insist on opinions or self-confidence in others. - The students must be willing to learn from (being open to) others' beliefs and ideas to understand other people better. - Open or willing to accept something new.
Cooperation Is working together with others to achieve common goals by sharing tasks and mutual help sincerely	- The students must actively be involved in community service cleaning classes or schools. - The students must willingness to carry out tasks as agreed. - Willing to help others without expecting anything in return and active in group work.

Attitude and Understanding	Indicator
Polite It is the right attitude in the association, both in speaking and in behavior. Norms of politeness are relative, meaning that what is considered good/polite at a particular place and time can be different at other places and times	- The students must focus on group goals. - The students must not prioritize personal interests. - The students must find ways to overcome differences in opinion/thoughts between themselves and others. - Encourage others to work together to achieve common goals. - Respect for elders. - The students must learn no words harsh and obscene. - Do not spit anywhere. - The students must not interrupt conversations at inappropriate times. - The students must say thanks after receiving help from others and must behave greetings, smiles - Ask for permission when entering someone else's room or using other people's belongings. - The students must treat others as students would like to treat - Opinions or activities without hesitation.
Confidence. Is a mental or psychological condition of a person who gives a strong belief to act or act	- Able to make decisions quickly. - Not easily discouraged. - Not awkward in acting. - Dare to present to the class. - Dare to argue, ask, or answer questions.

According to the Regulation of the Minister of Education and Culture Number. 81A in 2013, students obtained the scores are:
1. Very good: when obtaining a score: 3,33 ≤ score 4,00
2. Good: when obtaining a score: 2,33 ≤ score 3,33
3. Enough: when obtaining a score: 1,33 ≤ score 2,33
4. Less: when obtaining a score: score ≤ 1,33

CONCLUSION

The student information system at SMP Negeri 9 Tapung uses text-based programming languages such as HTML, JavaScript, CSS, and PHP. This system manages student data related to attitude character assessment to assess students' behavior while in school to make it easier to carry out routine student affairs and improve character in the teaching and learning process. The character assessments that are processed are honesty, discipline, responsibility, tolerance, cooperation, self-confidence, and tolerance. A computerized system will simplify the teacher's duties in carrying out disciplinary enforcement actions and increase students' character in school. This information system is the initial stage in managing data on students' attitudes and character values. For this reason, the development, improvement, and addition of features and suggestions and criticisms from all parties expecting to create a better and structured information system for the improvement of the quality and character of students who are good at school.

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