DESIGN OF A WEB-BASED POINT RECORDING SYSTEM AT SMK NEGERI 1 TAKENGO

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Abstract. The Guidance and Counseling Website for Teachers is an online resource created with the express purpose of offering assistance and direction to teachers in carrying out their duties more successfully and improving their general well-being. This website attempts to offer pertinent materials, data, and counseling services catered to the unique requirements of instructors. Teachers frequently encounter a variety of difficulties in the increasingly difficult and complex educational environment, one of which is classroom management. This point-recording website was created to help teachers at SMK Negeri 1 Takengon capture students' points of failure more easily, avoiding data errors and enhancing the effectiveness and efficiency of their job.

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INTRODUCTION

In this ever-expanding digital age, almost all aspects of human life have been influenced by information and communication technologies, including education. New opportunities have been opened by the use of technology in education, and there are many applications that can help school administration, learning, and teaching. The app allows users to access educational resources more efficiently, interact with interactive learning content, and improve school management and teaching quality (Manurian, W., Mubarok, I., Agustin, A. S., & Sania, N. 2020).

In today's digital age, technology holds a pivotal position in simplifying information management and recording processes. The education sector is no exception to this trend, with educational institutions recognizing the value of incorporating technology into their administrative and management practices. SMK Negeri 1 Takengon, as an educational establishment, acknowledges the importance of harnessing technology for enhancing various aspects of its operations. In light of this, there is a growing need to create a web-based system for recording student points, aiming to streamline the tracking and management of student grade data (Gysbers, N. C., & Henderson, P. 2014).

The integration of technology in educational institutions offers a multitude of benefits, including increased efficiency, accuracy, and accessibility of data. The development of a web-based point recording system for SMK Negeri 1 Takengon represents a proactive approach towards aligning with modern practices. This system could potentially offer teachers and administrative staff the tools they need to record and manage student grades seamlessly. By digitizing the point recording process, the school can minimize manual errors, enhance data security, and provide a more convenient and efficient experience for both educators and students.

Furthermore, the implementation of such a system could lead to improved transparency and communication between teachers, students, and parents or...
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In this context, it is essential to design a system with good and functional design principles. The system should be user-friendly, intuitive, and capable of providing accurate and real-time information to all stakeholders involved. Therefore, the objective of this project is to outline the design of a web-based point recording system at SMK Negeri 1 Takengon, which represents a progressive step towards efficiency and modernization in educational administration. In this report, we will elucidate the details of this system's design, including its key features, user interface, and the technical architecture utilized to achieve these goals (Dinda, K. S. 2023).

Teachers specializing in counseling play a pivotal role in shaping the holistic development of students, guiding them through challenges, and unlocking their full potential. Operating within the framework of the educational system, guidance and counseling teachers assume a crucial responsibility of assisting students in navigating various hurdles they encounter, both within the school environment and their personal lives. These educators provide valuable guidance, counseling sessions, and emotional support to help students address a wide spectrum of issues and enhance their overall well-being (Hermawan, W. 2018).

The role of guidance and counseling teachers extends beyond academic matters, encompassing personal, social, and emotional aspects of students' lives. They create a safe and supportive space for students to express their concerns, providing an empathetic ear and offering effective coping strategies. Whether it's handling academic stress, peer relationships, career aspirations, or personal challenges, these specialized educators are adept at identifying underlying problems and helping students work through them. Through one-on-one counseling sessions or group workshops, they empower students to develop essential life skills, resilience, and a positive mindset that contribute to their growth as well-rounded individuals.

In the broader context of education, the presence of guidance and counseling teachers contributes to fostering a nurturing and inclusive learning environment. By addressing students' social and emotional needs, they create a conducive atmosphere for academic excellence and personal development. Moreover, the guidance provided by these teachers helps students make informed decisions about their academic paths and future endeavors, equipping them with the tools to overcome obstacles and make meaningful contributions to society.

Counseling-specialized teachers play a pivotal role in guiding students through multifaceted development, spanning academic, social, emotional, and vocational domains. Their expertise lies in helping students cultivate a well-rounded growth
trajectory by addressing various aspects crucial for their overall success. Within the academic sphere, these teachers collaborate with students to set meaningful educational goals, strategize effective study methods, and tap into their academic potential. They create a personalized learning environment that fosters curiosity, critical thinking, and a passion for learning.

In addition to academic support, counseling-focused educators foster social and emotional development in students. They create a safe space where students can openly discuss their concerns, anxieties, and personal experiences. By providing guidance on managing stress, building healthy relationships, and developing emotional intelligence, these teachers equip students with invaluable life skills. Moreover, they encourage self-awareness, helping students recognize their strengths and weaknesses, ultimately boosting their self-confidence and enhancing their ability to navigate challenging situations.

Furthermore, vocational development is a pivotal focus area for counseling-specialized teachers. By identifying students' interests, talents, and aspirations, they guide them in making informed decisions about future career paths. Through career counseling sessions, these teachers facilitate discussions on potential professions, educational choices, and the skills needed to succeed in the ever-evolving job market. This holistic approach ensures that students not only excel academically but also develop a sense of purpose and direction in their personal and professional lives. (S.Pressman, R. 2010).

Furthermore, the role of guidance and counseling instructors extends beyond academic matters to include their vital role as mediators in resolving disputes among students. These professionals are equipped with the skills to facilitate effective communication and conflict resolution among students, fostering a harmonious and conducive learning environment. By providing a platform for open dialogue and addressing misunderstandings, these instructors contribute to the overall well-being and social development of students.

In the realm of information dissemination, guidance and counseling instructors play a pivotal role in sharing relevant insights about potential academic and professional opportunities. By staying abreast of educational trends, career prospects, and vocational pathways, these instructors empower students to make informed decisions about their academic pursuits and future careers. This dissemination of knowledge ensures that students are equipped with the necessary information to navigate their academic journey and make well-informed choices that align with their aspirations (Halim, A. A., & Idrus, R. M. 2017).

Moreover, the presence of guidance and counseling instructors in the educational ecosystem nurtures a supportive network that aids students in their personal growth. These professionals offer personalized guidance and mentorship, helping students address challenges, set realistic goals, and develop essential life skills. Through individualized attention, students are encouraged to explore their strengths, interests, and values, guiding them towards making choices that resonate with their unique identities and ambitions. This personalized approach not only enhances students' academic experiences but also contributes to their holistic development as confident and self-aware individuals.

In the school environment, it's not uncommon for pupils to exhibit instances of
disciplined behaviors during teaching and learning activities. These behaviors can range from respectful interactions with teachers and peers to adherence to classroom rules and regulations. Recognizing the importance of documenting and addressing such behaviors, we have developed an innovative application that aims to streamline the process for guidance counselors to record and manage disciplinary incidents effectively.

This application serves as a digital tool that allows counseling guidance teachers to swiftly and accurately document instances of disciplined behaviors displayed by pupils. By digitizing this process, the application simplifies the recording and tracking of disciplinary incidents, making it easier for counselors to maintain a comprehensive and up-to-date record. This not only helps in tracking the frequency and nature of disciplinary issues but also aids in identifying trends or patterns that might require targeted interventions or preventive measures.

The application's user-friendly interface and intuitive features empower counseling guidance teachers to efficiently input relevant information, including the date, time, location, and description of each disciplinary incident. Furthermore, the application can generate reports and analytics that offer insights into the types of behaviors that are more prevalent and the contexts in which they occur. This data-driven approach equips school administrators and counselors with valuable information to develop informed strategies for maintaining a positive and conducive learning environment while fostering pupils' personal growth and character development.

METHOD

Student point recording system This type of research uses a research approach and development (research and development). According to Borg & Gall (1983:772), quoted by Prof. Dr. Emzir, M. Pd. (2012: 270), Research and Development Education (R&D) is a process used to develop and certify educational products. As for the model, the development used in research is the waterfall model. The waterfall model is a sequential and linear approach to software development, where each stage of the process such as requirements analysis, design, implementation, testing, and maintenance—is carried out in a specific order, with the beginning of the subsequent stage occurring after the conclusion of the preceding one. This concept is frequently applied to software development, which calls for a more organized and well-documented process (Dziuban, C. D., Moskal, P. D., & Hartman, J. L. 2020).

RESULTS AND DISCUSSION

The end result of this design research is a web-based system for tracking student points. Storyboards and databases that were developed in response to requirements at SMKN 1 Takengon served as the foundation for the product design. A list of pages that the user can access is shown below. The user will be prompted to provide a username and password on the login screen. The main page will be displayed if the login is successful. The initial appearance of the application can be seen in Figure 1.
The Login Menu Page is the initial interface in an application or system that facilitates users to undergo the authentication process and access their accounts. On this page, users will be prompted to input credentials, such as usernames and passwords, to verify their identity before being granted access to restricted or private features and content. The Login Menu Page often serves as the starting point in user interaction with the application, securing access to sensitive information and ensuring that only authorized users can utilize the facilities within the system. Upon successful login, users are typically directed to pages or features that correspond to their roles or access privileges within the application (Nugraha, P. G. S. C. 2021).

The page will provide many selections for the concerned teacher to choose from after the username has been entered. A list of students' names, violation points, student violation input, reports, and activities are just a few of the menu options. On this page the teacher can see student data directly, we can see that in figure 2.

The Student Data Viewing Page is a display within a system or application that allows users, such as teachers or school staff, to access and view information related to student data. On this page, users can browse student data such as names,
birthdays, grades, attendance, and other relevant information. The purpose of this page is to provide easy and efficient access to users for monitoring and analyzing the performance and development of students in various educational aspects. With this page in place, users can make more informed decisions based on accurate data to support better learning and educational management (Nugraha, P. G. S. C. 2021).

The teacher can do a search for student violations on the student point recording page. Depending on the type of infraction that students committed at school, each disciplinary action taken by students carries a varied number of points. For this reason, the instructor can use this student recording tool to automatically look for infractions that pupils have committed while at school. Figure 3 displays a picture of the student point recording page.

![Figure 3. Student point recording page](image)

The Student Grade Recording Page is a display within a system or application that allows users, such as teachers or school staff, to record and manage student grades. On this page, users can input student grade information for various subjects or assessment activities, such as exams, assignments, or projects. Additionally, users can also view students' grade history, calculate average grades, and analyze academic achievements more comprehensively. The purpose of this page is to provide an efficient tool for users to manage and track students' academic progress, as well as to support informed decision-making based on reliable grade information. With the presence of this page, users can enhance the efficiency of grade administration and monitor student performance more effectively.

**CONCLUSION**

Automating the process of recording and computing student points is simple with the help of the program. Users can cut down on time-consuming manual labor and lower the possibility of human error by using this program. The management of student points is made more effective with the aid of this app. User decision-making and timely feedback are made possible by the simple access to, real-time analysis of, and updating of student point data. Overall, the development of a student point recording application enhances the management and monitoring of student points in
terms of efficiency, transparency, analysis, and collaboration. With the use of this application, it is envisaged that the administration of student points will become more organized, accurate, and supportive of improved academic goals.

REFERENCES


[2] According to Borg & Gall (1983:772), quoted by Prof. Dr. Emzir, M. Pd. (2012: 270), Research and Development Education (R&D) is a process used to develop and certify educational products. As for the model, the development used in research is the waterfall model.


Saleh, 10(1).