Development of Guidance Services Management System for Public Secondary High School

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ABSTRACT

Effective Guidance Services Management is vital in public secondary high schools for the academic, personal, and good behavior development of the students. This study utilized quantitative descriptive research design to develop a Guidance Services Management System for public secondary high schools in Koronadal, South Cotabato, Region XII and assessed the acceptability and usability of the system using the TAM. The GSMS was developed using the Incremental Model of the Software Development Life Cycle, allowing continuous improvements based on user feedback. Data were collected from 96 respondents composed of school administrators, guidance counselors, and teachers from selected public secondary schools in Region XII, Philippines. A statistical tool was used to analyze the data, particularly focusing on the mean and standard deviation to measure user responses regarding system usability and acceptability. Findings revealed a high level of user acceptance, and strongly agreeing that the system is useful, easy to use, and effective in enhancing guidance service delivery. The system significantly streamlined case management, improved student tracking, and facilitated timely intervention reporting. Users also expressed strong willingness to adopt the system over traditional manual methods. The study recommends a comprehensive implementation plan, including user training and adoptions, phased rollout, school wide deployment, and continuous system evaluation. By integrating GSMS, schools can strengthen their capacity to deliver data-driven, responsive, and structured guidance services suited to the local educational environment.

Keywords—Education, Information Technology Integration, guidance services management system, technology acceptance model, information management system, public secondary schools, student support services, quantitative descriptive design, Philippines

INTRODUCTION

Guidance services management involves the structured planning, implementation, and evaluation of programs to support students' academic, personal, and social development (Pranoto, 2024). It ensures systematic service delivery and fosters a supportive school environment (Elumalai, 2023). Integrating a system into guidance management can enhance operational efficiency, effectiveness, accessibility, and timely support in addressing student needs (Labayan et al., 2022).

However, many schools still struggle with poor service delivery and ineffective systems, failing to meet current educational demands (Singh, 2022).

Poor delivery and accessibility of guidance services is a widespread issue globally. In the U.S., outdated manual processes and weak technological integration delay student support, particularly impacting underserved communities (Choi et al., 2022). Similar challenges are found in Asia, especially India, where diverse student needs are unmet (Singh, 2022), and in African countries like Nigeria, where a lack of infrastructure, resources, and trained counselors hinders educational development (Isah et al., 2023). In Italy, administrative inefficiencies and limited use of technology also weaken student support systems (Firmansyah et al., 2024). In the Philippines, particularly in Region XII and General Santos City, reliance on manual processes, lack of trained counselors, and absence of digital tools severely affect guidance services (Luciano et al., 2024).

Unlike previous research that mainly focused on teachers and students in foreign settings (Sedofia et al., 2022), this study emphasizes system acceptance and usability among guidance counselors, teachers, and administrators within Region XII, Philippines. It uses a purely quantitative descriptive research design, differing from earlier mixed-methods approaches (Dankyi et al., 2024). The study addresses gaps in scope, population, context, and method by focusing on local needs and challenges in guidance service delivery. The development and implementation of a guidance services management system aim to enhance support services, streamline processes like counseling and record-keeping, improve resource allocation, and promote equitable access to guidance services, ultimately supporting student well-being and development.

Statement of the Problem

This study developed Guidance Services Management System for public secondary high schools in Koronadal, South Cotabato, Region XII. Specifically, the study sought answers to the following questions;

1. How will the guidance management services system be developed?

2. What is the level of acceptance of the developed Guidance Services Management System, utilizing the Technology Acceptance Model (TAM)?

3. What will be the implementation plan for the developed Guidance Services Management System?

REVIEW OF RELATED LITERATURE

The review is anchored on key concepts and frameworks related to system development methodologies, the Technology Acceptance Model (TAM), and strategic implementation planning in educational settings. It examines the process of system development, the acceptance of systems through the lens of TAM, and the formulation of an implementation plan, all based on a solid foundation of scholarly research. Specifically, the role of Information Management Systems (IMS) in education is highlighted as crucial for improving administrative efficiency, communication, and student support. Studies by Chhawware (2024) and Yulyanthika et al. (2023) demonstrate that IMS, particularly when applied to guidance services, allow counselors to track student progress, manage referrals, and prioritize interventions, ensuring that students receive timely and appropriate support, ultimately enhancing retention rates. Furthermore, the transition from traditional manual systems to digital IMS offers significant benefits, especially in addressing the challenge of insufficient guidance counselors by improving operational efficiency, resource allocation, and intervention effectiveness (Fauzi et al., 2024).

The review further underscores how IMS can play a vital role in reducing student dropout rates by providing real-time monitoring and enabling timely interventions. Research by Barragán et al. (2024) and Roulet (2023) illustrates that early identification of academic or personal challenges can prevent disengagement, thus reducing the likelihood of students dropping out. In contrast, traditional manual systems often fall short due to errors, inefficiencies, and the challenges posed by high student-to-counselor ratios, particularly in large schools (Anderson et al., 2023). To address these challenges, the proposed system, the GSMS, aims to centralize and automate student data management. By enabling real-time monitoring and offering data-driven insights, the GSMS will help counselors prioritize cases, track student progress, and make informed decisions about interventions. Features such as automated scheduling, real-time reporting, and enhanced security measures are essential to improving the system’s efficiency and ensuring timely support for all students (Naguib et al., 2024).

Moreover, the integration of cloud-based systems within the GSMS offers substantial advantages to educational institutions. Cloud computing enhances the accessibility, scalability, and security of student data management, providing a flexible solution that can grow with the institution's needs (Noncheva, 2024). By utilizing cloud technology, the GSMS can streamline operations, improve collaboration, and ensure robust data security, which is vital for maintaining the trust of students, parents, and staff. The review also emphasizes the importance of system usability and user satisfaction, which are critical for successful implementation. A user-friendly system that integrates data on student grades, attendance, and behavior can help counselors and

administrators make more timely and informed decisions, ultimately improving student outcomes. Research by Alalawi et al. (2024) and Fauzan et al. (2024) supports the notion that when these systems are designed for ease of use and efficiency, they can reduce errors, enhance data management, and facilitate better intervention strategies, leading to improved retention and success for students.

THEORETICAL FRAMEWORK

This study was anchored on Socio-technical Systems Theory (Trist et al.,1951), Technology Acceptance Model (Davis, 1989) and Behavioral Learning Theory (Skinner, 1953). This study is based on three key theoretical frameworks: Socio-technical Systems Theory, the Technology Acceptance Model (TAM), and Behavioral Learning Theory. Socio-technical Systems Theory, developed by Trist et al. (1951), emphasizes the need to integrate both social and technical components in organizational systems to improve overall performance. In the development of the GSMS, this approach ensured that technological features, such as automated scheduling and real-time tracking, were designed to align with the organizational needs of schools and the specific roles of guidance counselors, fostering a collaborative and efficient environment that enhances system usability and effectiveness.

The Technology Acceptance Model (TAM) was applied to assess the acceptability of the GSMS. TAM focuses on key factors such as perceived usefulness and ease of use, which were critical in evaluating how well the system met the needs of its users. Feedback from educators and school personnel helped refine the system, ensuring that it supported guidance tasks effectively while remaining user-friendly. This user-centered approach, based on structured evaluations, helped optimize the GSMS for adoption and long-term use, ensuring that it was both technically functional and aligned with the needs of its users, ultimately improving the efficiency and quality of guidance services in public secondary schools.

Behavioral Learning Theory, was also applied in the development of the GSMS to guide the design of features that would reinforce positive student behaviors. This theory focuses on shaping behavior through reinforcement and intervention, making it highly relevant to the role of guidance counselors in promoting student's need. The system incorporated tools to monitor behavior, intervene in real-time, and provide positive reinforcement, which helped foster a structured and supportive environment for students. By using data-informed decisions and personalized interventions, the GSMS played a key role in promoting holistic student growth and improving outcomes for students.

Conceptual Framework

The conceptual framework for the GSMS was based on the Input-Process-Output (IPO) model, which guided the identification of system requirements, development, and evaluation (Baxter et al., 2010). It incorporated the Technology Acceptance Model (TAM) to assess user satisfaction and system acceptability, ensuring the system met the needs of counselors, students, and administrators (Davis, 1989).

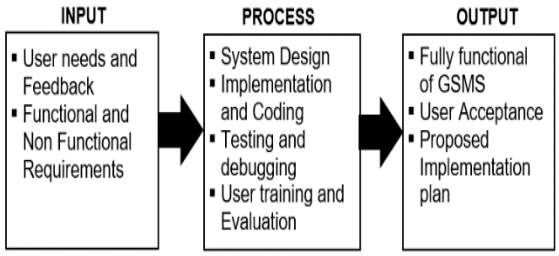

Fig. 1 Conceptual Input, Process, Output and Outcome of the study

Fig. 1 shows the conceptual framework of the study, which followed the Input-Process-Output (IPO) model for the development of the Guidance Services Management System (GSMS. The study followed the Input-Process-Output (IPO) model to develop the Guidance Services Management System (GSMS). In the Input phase, essential information was gathered, including user needs and feedback, as well as both functional and non-functional system requirements. This phase ensured that the system's development would align with the

practical needs of guidance counselors, administrators, and other stakeholders, guiding the direction of the system design.

In the Process phase, the system underwent core development activities, including design, implementation, coding, and rigorous testing. This phase also involved debugging and user training, ensuring the system's usability and functionality in a real-world school setting. Finally, the Output phase resulted in a fully functional GSMS, with positive indicators of user acceptance and a proposed implementation plan, demonstrating the system's potential to enhance the efficiency and effectiveness of guidance services in public secondary schools.

METHODOLOGY

Presented in this chapter are the research methodology used in the development, implementation, and evaluation of the GSMS for public secondary schools, covering the quantitative research design, system development steps, software methodology, respondent selection, data collection procedures, and statistical tools for assessing system usability and acceptability.

Research Design

This study utilizes the Software Development Life Cycle (SDLC) with the Incremental Model to guide the systematic development of the student profiling and disciplinary management system (GSMS). The Incremental Model allowed for progressive development and continuous feedback, enabling the system to be built in manageable steps. This approach facilitated the early delivery of core functionalities, with each increment refining the system based on user feedback. The development process followed clear steps, including planning, requirement analysis using the PIECES framework, system design, and architecture, followed by incremental development, testing, and User Acceptance Testing (UAT). The iterative process ensured the system remained adaptable and continuously improved to meet the evolving needs of users in the educational environment.

The study also employed a quantitative descriptive research design to objectively assess the acceptability and usability of the GSMS. Through surveys and questionnaires, the study collected numerical data to evaluate user requirements, system performance, and challenges in managing guidance services. The application of the Incremental Model, alongside the quantitative evaluation, allowed for the system’s development to be informed by concrete evidence and real-world feedback. This approach ensured that the final system was functional, reliable, and met the practical needs of school administrators, teachers, and guidance counselors, while also being adaptable to future changes and refinements.

The system environment was built on server-grade hardware with backup power, utilizing PostgreSQL for database management. The development stack included PHP, Python, Node.js, and React, while secure and stable internet connectivity, along with HTTPS protocol, ensured encrypted data transmission.

Software Development Methodology

The study utilized the Software Development Life Cycle (SDLC) with the Incremental Model, allowing for step-by-step development and refinement of system modules based on user feedback. Each increment was preceded by a Requirement Analysis using the PIECES Framework to ensure alignment with user needs and organizational goals. The development of the Guidance and Student Monitoring System (GSMS) followed a structured process: planning, design, development, testing, deployment, and maintenance. The Technology Acceptance Model (TAM) was used to evaluate system features, while Subject Matter Experts (SMEs) participated in the design and validation stages to ensure accuracy and relevance. The system requires high-performance servers and user devices with stable internet access and supports integration via APIs and cloud services. Security, responsiveness, and performance are addressed through various measures, including multi-factor authentication, load balancing, and comprehensive testing.

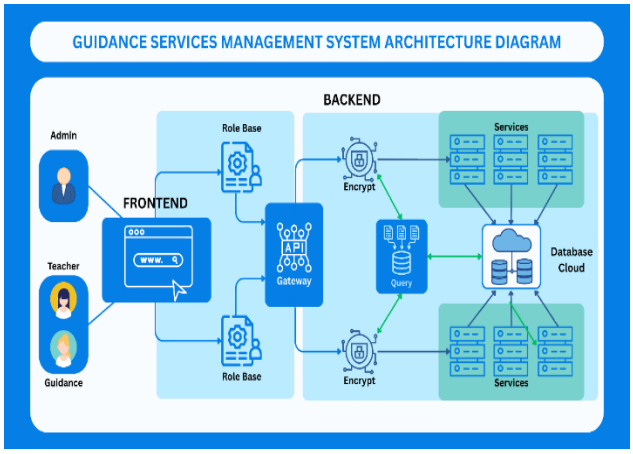

Fig. 2 GSMS System Architecture

Figure 2 shows the GSMS architecture, a modular web-based platform designed to digitize and streamline school guidance services. It supports three primary user roles: teachers, who submit student referrals; counselors, who manage cases, schedule appointments, and generate reports; and administrators, who oversee the system and manage user accounts. The frontend is developed using HTML, CSS, and JavaScript, providing a responsive and interactive interface for submitting cases, booking appointments, and accessing reports. The backend, built with PHP and integrated APIs, connects the frontend to key system modules, including the Notification Module (for alerts and reminders), Reports Module (for generating disciplinary reports), Scheduling Module (for managing appointments), and Access Control Module (for secure, role-based access). All data is stored in a centralized, cloud-integrated database, protected by encryption and regular backups. This architecture ensures efficient, secure, and scalable guidance operations, promoting data integrity and user-specific access throughout the workflow.

Research Locale

The study was conducted in selected public secondary schools across Region 12 (SOCCSKSARGEN) in the southern part of Mindanao, Philippines, as shown in Fig. 3. These schools were chosen based on criteria relevant to the development and implementation of the GSMS. The diverse educational and demographic backgrounds within Region 12 provided an ideal setting for gathering comprehensive data on existing guidance services. These schools also represented a cross-section of public secondary institutions, ensuring that the findings and recommendations of the study were broadly applicable in enhancing guidance services management across the region. The variation in school size, available resources, and student population allowed the study to capture a wide range of experiences and challenges (Radu, 2024). This ensured that the GSMS would be adaptable to different contexts and responsive to the actual needs of schools. Ultimately, the regional focus enhanced the relevance and scalability of the system and increased its potential for long-term implementation in similar educational settings.

Fig. 3 Map of Region 12, also known as SOCCSKSARGEN

Research Respondents

The study employed a purposive sampling technique to select participants with relevant expertise for evaluating the GSMS. Two distinct groups were involved, drawn from twelve public secondary schools across Region XII. The first group consisted of 36 key informants, including one school head and two guidance faculty members from each school, who tested the GSMS during its development stages. Their feedback on the system's functionality, report generation, and usability was essential for refining the system. Participants were chosen based on their experience in guidance services, administrative management, and familiarity with school-based data systems, ensuring informed evaluations of the system's design and effectiveness in addressing guidance service gaps.

To assess the usability and acceptability of the GSMS, the study utilized the TAM with an additional group of 60 participants, bringing the total to 96 respondents. This second cohort, consisting of school administrators, guidance counselors, and classroom advisers, evaluated the system's support for their work processes and efficiency. Quota sampling was used to ensure balanced representation across roles, with each school contributing a mix of respondents for both purposive and TAM-based evaluations. This combined approach allowed the study to gather comprehensive insights, strengthening the validity of the findings and ensuring a thorough understanding of how the GSMS performed in real educational settings.

Research Instrument

The study evaluated the acceptability of the GSMS using an adopted research instrument based on the Technology Acceptance Model (TAM). Developed by Davis (1989), TAM evaluated user perception of system usefulness, ease of use, and overall acceptance after confirming its functionality during development. The TAM-based questionnaire provided structured insights into the usability and acceptability of the system, ensuring that it aligned with the needs and expectations of key stakeholders (Ramayani et al., 2022).

To ensure the validity of the questionnaire, it was contextualized specifically to the Guidance Services Management System and the needs of the participants. The instrument was reviewed and validated by expert panels to ensure that all items were relevant to the objectives of the study. This allowed for the identification of any ambiguities and ensured that the questionnaire accurately measured what it intended to assess. Regarding reliability, the consistency of the instrument was assessed using Cronbach's Alpha, a widely recognized measure of internal consistency. Previous validations of TAM-based instruments had reported Cronbach's Alpha scores ranging from 0.70 to 0.80, indicating good reliability (Rigopoulos et al., 2008).

The responses for TAM questionnaires are measured using a 5-point Likert scale. The scoring is interpreted based on the ranges of the mean, as shown in the table below:

Mean Score Range	Descriptive Rating	Interpretation
4.20 – 5.00	Very High	The system fully meets expectations and performs exceptionally well in the specified criteria.
3.40 – 4.19	High	The system meets expectations and performs well, with only minor issues or areas for improvement.
2.60 – 3.39	Moderate	The system is acceptable but requires significant improvements to meet expectations satisfactorily.
1.80 - 2.59	Low	The system fails to meet expectations in several areas and requires substantial modifications.
1.00 - 1.79	Very Low	The system does not meet expectations and performs poorly in most or all aspects evaluated.

Data Gathering Procedure

The data gathering process began by obtaining approvals from the Dean of the Graduate School of the University of the Immaculate Conception (UIC) and the research ethics committee to ensure the study met ethical standards. Once institutional and administrative consents were secured, the researcher proceeded with the development of the GSMS by gathering initial user requirements. Before data collection, participants received a detailed explanation of the Informed Consent Form (ICF) and were given a short demonstration of the system to ensure they understood its features before answering the survey.

After development, the GSMS underwent a system validation phase where selected participants evaluated its functionality, usability, and responsiveness. Another system demonstration was provided to ensure participants had hands-on experience before giving feedback. Respondents assessed key components such as interface design, navigation flow, and system performance, with their feedback used to refine the system while maintaining confidentiality and ethical standards.

The final phase involved user testing where actual end-users explored the GSMS and completed structured questionnaires to share their experiences. Participants were again briefed on the ICF and were encouraged to provide honest feedback on the system's real-world performance. Data were collected confidentially, reminders were sent to boost response rates, and acknowledgments were later issued to participants, with a summary of findings made available upon request.

Data Analysis

The collected data were analyzed using appropriate statistical methods aligned with the research objectives, focusing on the acceptability and usability of the proposed GSMS through a contextualized TAM based questionnaire.

To interpret the responses, descriptive statistical tools, specifically the mean and standard deviation (SD), were utilized. The mean was calculated to determine the average level of participant agreement across various constructs of the TAM framework. This provided a clear understanding of the general perception of the performance and usability of the system. The standard deviation was used to measure the extent of variability in the responses of the participants, indicating whether opinions were generally consistent or varied significantly. A low SD suggested consensus among respondents, while a higher SD revealed differing user experiences or perceptions, which highlighted areas for system refinement. These statistical measures served as the basis for identifying trends and patterns in user feedback. The results guided decisions for system enhancement and ensured that the final output met the expectations and needs of its intended users.

To comply with the Data Privacy Act of 2012, the study implemented strict confidentiality measures, including secure storage of data in password-protected and encrypted systems accessible only to authorized personnel. Findings were anonymized, personal data were securely deleted after the study, and additional safeguards like multi-factor authentication, staff training, and breach reporting protocols were put in place. Regular reviews were also conducted to ensure the effectiveness of all data privacy and security practices. To ensure ongoing compliance, periodic audits were conducted to evaluate and improve the data privacy measures throughout the study.

Ethical Considerations

In conducting this study, relevant ethical guidelines were considered, such as user safety, privacy, and the integrity of the research process throughout the system creation, validation, and user testing phases. In the three stages, informed consent was obtained from all participants, informing them of their voluntary participation and the right to withdraw at any time. Principles of fairness and transparency guided the development of the system. Specifically, permissions were sought from the office of the data owner, data sets were audited, and different sources were used to create the system. During the interview, consent was taken before the scheduled interview, ensuring that all stakeholder perspectives were considered. Data privacy was also prioritized, ensuring any user data collected was anonymized and securely stored. In the validation phase,

the accuracy and reliability of the system were rigorously tested while minimizing any potential risks to users. Participants were informed that interviews would be conducted several times to ensure that the system aligns with/answers their needs. During user testing, participants were informed of their extent of participation, such as manipulation of the system and answering the survey questionnaire. Likewise, special attention was given to avoiding bias or discrimination in system performance, ensuring that all user groups were treated equitably.

RESULTS AND DISCUSSION

Presented in this section are the findings of the study highlighting the development of the system, its usability evaluation, implementation and practical implication of the system.

Development and Security of the GSMS

The study employed the System Development Life Cycle (SDLC) using the Incremental Model. This methodology allowed for the progressive development of system functionalities in manageable modules or increments. Each increment followed the phases of Design, Development, and Testing, but only after conducting Requirement Analysis using the PIECES Framework to identify and evaluate system needs and feedback. This ensured that the system addressed the actual needs and operational deficiencies of the guidance office in terms of Performance, Information, Economy, Control, Efficiency, and Service.

TABLE I PIECES Framework of GSMS

PIECES Category	Problems Identified	Functional Requirements & Opportunities	Expected Outcomes
Performance	Time-consuming documentation process leading to inefficiency.	Streamline workflows to minimize delays in data handling.	Increased guidance counselor efficiency, with less time spent searching for records.
Information	Inconsistent or incomplete records due to reliance on manual entry and fragmented systems.	Consolidate and digitize student profiles into a centralized system, making data more accessible and reliable.	Develop digitization of student profiles, making all student records accessible and up-to-date.
Economy	High paper usage, which results in significant costs for printing and storing documents.	Eliminate paper-based workflows, resulting in reduced costs for printing, filing, and administrative staff overtime.	Reduction in paper usage, cutting costs related to printing and storage.
Control	No clear access control, allowing unauthorized staff or individuals to view sensitive student information.	Implement role-based access control and secure data handling.	Full access control with clearly defined roles, such as counselors, administrators, and students. and changes.

Efficiency	Redundant data entry and manual updating of student records.	Automate data entry and create linkages between systems.	Reduction in data entry time through automation and integration.
Service	Long queues for appointments, leading to delays in consultations and student dissatisfaction. statuses.	Introduce online appointment scheduling and notifications.	Reduction in appointment scheduling time, with real-time availability updates.

Table 1 shows the result of the thorough requirements analysis conducted prior to the design phase, which helped identify the existing problems, technical requirements, and system needs of the guidance office. The requirements analysis revealed that the existing manual process of managing student data, tracking disciplinary cases, and scheduling appointments resulted in inefficiencies. Paper-based documentation slowed down performance, often causing delays in retrieving student records or tracking case histories. Information was fragmented, leading to data inconsistencies and errors. Economically, the office faced increased costs due to paper usage, file storage, and staff workload. There was a lack of security controls, no audit trail existed, access was not restricted by role, and confidential data was easily accessible. Service delivery suffered from poor coordination and scheduling, causing delays in intervention and insufficient tracking of student progress.

The development of the GSMS followed an incremental model, with each module being introduced in distinct phases. The first increment focused on the Student Profiling Module, which captured essential student information, improving data accuracy and reducing delays. The second increment introduced the Disciplinary Case Management Module, designed to track student behavior and manage interventions, with a customizable offense library to accommodate different school policies. The third increment focused on an Appointment and Scheduling Module, streamlining consultation requests and preventing scheduling conflicts through real-time updates and conflict detection. The fourth increment introduced a Report Generation Module that provided data-driven insights through dynamic, customizable reports, improving decision-making. The final increment focused on a Role-Based Access and Security Module, ensuring that data was securely managed and accessible only to authorized users, with compliance to data privacy regulations.

After implementing and testing these modules, the system was deployed in a controlled environment, with feedback indicating significant improvements in efficiency and service delivery. The GSMS addressed key operational challenges, including data redundancy, privacy concerns, and service delays. Through a disciplined application of the SDLC, the GSMS was developed to be an effective, secure, and scalable platform that enhances guidance office operations. Non-functional requirements such as performance, security, scalability, and usability were rigorously tested to ensure the system could handle high loads and maintain data integrity, making it a reliable and user-friendly solution for managing student records, disciplinary cases, scheduling, and reporting.

Level of Acceptance of the Developed GSMS Using the Technology Acceptance Model (TAM)

A survey was conducted to evaluate how respondents accepted the system using the TAM. Table 2 presents the level of acceptance of GSMS across various indicators, highlighting its perceived usefulness, ease of use, behavioral intention to use, and actual usage. The overall mean of 4.80 with a standard deviation of 0.38 indicates a "Very High" level of acceptance among the users. Understanding these results provides valuable insights into the usefulness of the system and potential for long-term adoption.

TABLE II Level of Acceptance of GSMS

No.	Indicator	Mean	SD	Interpretation
Perceived Usefulness of GSMS				
1	GSMS makes my job easier.	4.91	0.29	Very High
2	GSMS improves the quality of the work I do.	4.80	0.40	Very High
3	GSMS enables me to accomplish tasks more quickly.	4.78	0.42	Very High
Category Mean		4.83	0.37	Very High
Perceived Ease-Of-Use of GSMS				
1	1. The GSMS is easy to use.	4.93	0.26	Very High
2	2. The GSMS and methodology is easy to understand.	4.66	0.48	Very High
Category Mean		4.79	0.37	Very High
Behavioral Intention to Use GSMS				
1	I think that using GSMS is a good idea.	4.92	0.28	Very High
2	I think that using GSMS is beneficial for me.	4.79	0.41	Very High
3	I have positive perception about using GSMS.	4.74	0.44	Very High
Category Mean		4.81	0.38	Very High
Usage of GSMS				
1	I intend to use GSMS.	4.84	0.37	Very High
2	I intend to use GSMS instead of the traditional procedure.	4.72	0.45	Very High
Category Mean		4.78	0.41	Very High
OVER ALL		4.80	0.38	Highly Acceptable

The results from Table 2 show that users have a highly positive perception of the GSMS in all four domains.

In the first domain, Perceived Usefulness, the system received a mean score of 4.83, with users strongly agreeing that it enhances efficiency, work quality, and simplifies tasks. The highest rating was given to the statement, "GSMS makes my job easier" (M = 4.91). This aligns with previous research on the effectiveness of school management systems (Kumar et al., 2020; Kanivia et al., 2014).

In the second domain, Perceived Ease-of-Use, the system scored 4.79, indicating that users find it easy to use. The highest-rated statement, "The GSMS is easy to use" (M = 4.93), shows the system's user-friendliness, which aligns with the Technology Acceptance Model (TAM) and similar findings in other school management systems (Davis, 1989; Kumar, 2020).

The third domain, Behavioral Intention to Use, had a mean score of 4.81, with users expressing strong intent to continue using GSMS. The highest rating was for "I think using GSMS is a good idea" (M = 4.92), supporting the idea that the system is well-received and likely to be integrated into school management practices (Al-Emran et al., 2018).

Finally, in the Usage domain, users showed a strong intention to use GSMS over traditional methods, with a mean score of 4.78. This preference for digital solutions over manual processes is consistent with findings from studies on technology adoption in educational settings (Husin et al., 2024).

These findings suggest that GSMS is highly accepted and aligned with existing technology adoption models, reinforcing its potential for sustainable implementation in schools.

Strategic Plans for Implementation of GSMS

To ensure the successful deployment and long-term use of the GSMS, a well-structured strategic implementation plan is essential. This plan outlines the necessary steps, resources, and stakeholder involvement to effectively introduce, manage, and sustain the system across educational institutions. The deployment and maintenance of the GSMS involve key areas. The deployment and maintenance of the GSMS will focus on securing funding, engaging school leadership, and ensuring a smooth rollout and long-term sustainability. The first phase, Budget Planning for deployment, training, and maintenance, with funding from the school budget and LGU support. The school head, finance officer, and guidance counselors will manage this process, with the financial plan finalized one month before deployment. School Admin Engagement & Teacher Buy-in will secure full commitment from leadership and teachers through presentations and meetings. This phase will last 1-2 months before deployment, ensuring strong support for the GSMS.

The Deployment Strategy will implement a phased rollout, beginning with a pilot to ensure infrastructure readiness and address potential issues. User Training will provide sessions, materials, and hands-on experience to ensure users are ready to use the system effectively. The training will be completed within 1-2 months. Monitoring, Evaluation, and Feedback will track system performance and gather user insights, guiding continuous improvement. Post-deployment, System Maintenance & Support will ensure reliability through a support team, updates, and helpdesk, for addressing technical issues. Finally, Sustainability & Scalability will plan for future system upgrades and integration, overseen by the school head and ICT coordinators, for scaling costs. This integrated approach ensures the GSMS is effectively deployed, supported, and scaled for long-term success.

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusion drawn from the development, evaluation, and implementation of the GSMS. It also outlines key recommendations based on the findings to guide future enhancements and broader application of the system in public secondary schools.

Conclusions

The study successfully developed the GSMS to improve the delivery of guidance services in public secondary schools. Using the Incremental Model of the SDLC, the process began with thorough planning, and requirement analysis ensuring that the core of the system features was well-defined through input from school

head, guidance counselors, and teachers. The development process involved incremental stages, allowing for early delivery of key functionalities and refinement based on testing and user input. After internal testing, the system underwent User Acceptance Testing to ensure it met user needs. Through this iterative development, testing, and refinement process, the GSMS was successfully developed, meeting the needs of its users and ensuring it was both functional and reliable for managing guidance services.

The evaluation results show that the level of acceptance is very high with strong positive feedback on its usefulness, ease of use, and potential to replace traditional manual processes. School head, guidance counselors, and teachers expressed a high level of satisfaction with the ability of the system to streamline tasks, reduce workload, and improve service delivery. Additionally, users highlighted the user-friendly of the system interface and the seamless integration of essential features that address specific challenges in guidance services. The positive reception of the GSMS underscores its potential for long-term implementation and further improvement in enhancing the efficiency of school guidance operations.

Furthermore, the implementation plan of the study is designed to ensure a smooth and efficient transition to enhance guidance services management by focusing on essential aspects such as budget planning, admin engagement, thorough user training, system deployment and rollout, infrastructure improvements, and policy development. The successful integration of the GSMS highlights the power of technology in enhancing student support services, enabling a more systematic and data-driven approach to managing guidance services. The strategy also includes mechanisms for continuous monitoring and iterative improvements, ensuring the system evolves in response to changing educational needs. This well-rounded plan not only facilitates the successful implementation of the GSMS but also supports its long-term sustainability and scalability, providing schools with the tools needed to enhance service delivery, reduce administrative burdens, and ultimately create a more effective and supportive environment for both students, teachers and guidance counselors.

Recommendations

Considering that acceptance level is very high, the school administration may implement and adopt the comprehensive strategy plan outlined in the study. Full integration of the GSMS into the guidance services of the school will streamline operations, improve efficiency, delivery services, and provide more structured support for students. Administrators should prioritize training for guidance counselors and class advisers to ensure they are well-versed in the functionalities of the system, facilitating a smooth transition. Additionally, providing adequate resources for system maintenance, updates, and infrastructure enhancements will ensure the GSMS continues to function optimally. Developing policies that govern system usage, data privacy, and access control will also be critical to maintaining the security and confidentiality of student records. By following this strategy plan, administrators can help ensure the successful and sustainable integration of the GSMS into the school environment.

While the strategy plan provides a clear and actionable roadmap for successful GSMS implementation, it is important to address potential limitations that may arise during the process. One major limitation could be the resistance to change from staff who are accustomed to traditional manual systems, which may slow down the adoption process. To address this, administrators should focus on change management strategies, involving stakeholders early in the process through awareness campaigns, training sessions, and demonstrating the immediate benefits of the system to both teachers, guidance counselors and students. Another challenge could be the limited availability of resources in schools with smaller budgets, making it difficult to maintain the necessary infrastructure and provide continuous training. To address this, administrators can seek external funding opportunities, establish partnerships with technology providers, or consider phased implementation to reduce costs. Furthermore, ongoing monitoring, feedback collection, and iterative adjustments based on real-time user experiences will be critical to ensuring the effectiveness, adaptability, and alignment of the system with the evolving needs of the school. By proactively addressing these limitations, administrators can ensure the successful implementation of the GSMS and long-term sustainability.

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