

# Effectiveness of Enhanced Basic Education Information System (EBEIS)/ Learner Information System (LIS) Data and School Management

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## Abstract

Accessing reliable and accurate information is essential to the proliferation of information through various channels. This can help individuals make informed decisions and avoid misinformation or disinformation. In such a case, creating an online information system should be prioritized to provide available data and information for planning, budgeting, and allocating resources and operational targets. This study assessed the level of satisfaction with the usability of EBEIS/LIS data and school management by the Department of Education among public secondary schools of the Division of Bohol during 2019-2020. This research employed a quantitative method using the revised perception questionnaire, which underwent pilot testing using Cronbach's coefficient alpha to check the reliability level. Findings revealed that administrators, classroom teachers, and coordinators were satisfied with using data in school management. Findings revealed that administrators, classroom teachers, and coordinators were satisfied with using data in school management, satisfied with the personnel involved in facilitating the data, the information literacy given, and the ICT facilities to be used in online access data. However, some schools need more internet connectivity and more availability of posted/printed manuals and guidelines on accessing the online system. A need arises to provide a streamlined copy of the manual, which can be used as guidelines for online access, and strengthen its support in acquiring internet connectivity for all its learning facilities by partnering with internet service providers to optimize the signal.

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## **Keywords**

Data, EBEIS, LIS, Management, Online System, Satisfaction

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## **Introduction**

The information society has posed challenges to the education system as it requires developing new skills and competencies to navigate and use the abundance of information available effectively. However, technology has facilitated knowledge transfer and enabled global cooperation and teamwork. The increasing importance of information technology in society calls for a proactive response to leverage its potential. In the digital age, many innovations are made to maximize the benefits of technology, as people increasingly rely on the internet for communication, storage, and connection.

Two attempts were made to computerize the collection, processing, and analysis of school data in the Philippines' educational sector, both of which outsourced software development. However, installation and utilization problems resulted in neither system becoming functional. The first attempt was through the Unified Data Gathering System (UDGS) of the Department of Education, Culture and Sports (DECS), which used data analysis and prepared Statistical Bulletins between 1993 and 2001 despite bugs in the computer program. In 2002, the Basic Education Information System (BEIS) of the DepEd was established as a reform of the UDGS, resulting in a nine-month gap in data reporting [1].

Implementing the E-BEIS system with the assistance of Australian Aid and its mechanism for online data submission has helped address some of the challenges faced by the previous systems in the Philippines' educational sector. Despite this, there are still delays in data collection and dissemination and inconsistent cooperation from schools has limited the value of the data collected. This highlights the ongoing need for continued improvement and innovation in educational technology systems and the importance of effective implementation and use. For these systems to be truly valuable, they must be accurate, timely, and widely used by all stakeholders in the education sector (Albert, 2016).

The partnership between the Philippine Department of Education and the Australian Government through its Australian Agency for International Development (AusAID) is a positive step towards improving the technology used for proper data collection in the Philippine education sector. The Basic Education Sector Transformation (BEST) Program, which includes developing the EBEIS and LIS systems, aims to improve access to quality basic education by establishing accurate and consistent registries of learners and schools. The goal is to provide

decision-makers with the data and information they need to make informed decisions about planning, budgeting, resource allocation, and setting operational targets. This partnership highlights the importance of international cooperation in addressing education systems' challenges and the potential for technology to play a vital role in improving education outcomes.

The EBEIS and LIS portals established by the Philippine Department of Education are essential tools for collecting, storing, and analyzing data about the education sector. The Enhanced Basic Education Information System (EBEIS) is a comprehensive online database that provides information about basic education, including enrolment numbers, school reports, and other vital data. On the other hand, the LIS stores specific information about individual learners, such as their name, date of birth, and educational history. These portals are critical for ensuring that relevant and accurate data is available to stakeholders, enabling informed decision-making and policy formulation. Since their installation, these systems have improved the Department's ability to track enrolment and other vital metrics, helping to make sure that resources are being effectively allocated and that the education sector can meet its goals and objectives.

Management Information Systems (MIS) play a crucial role in educational institutions' effective and efficient administration. An online MIS system can support a variety of administrative functions, such as attendance tracking, assessment records, reporting, financial management, and resource allocation. An MIS can help organizations operate more effectively and make informed decisions by providing managers with the necessary information. Implementing a well-designed MIS is critical to modern and effective educational administration (Shah, 2014).

Accurate and timely information is critical to informed decision-making in education. This information links resource inputs to educational processes and outcomes, allowing managers to assess their strategies' effectiveness and identify improvement areas (Wako, 2003). The widespread use of information-based decision-making has resulted in more effective and efficient planning and resource allocation in many countries. By leveraging data and analytics, decision-makers can make informed decisions and allocate resources strategically based on actual needs and evidence-based practices. The DepEd in the Philippines is one example of an organization utilizing an online system to gather accurate data for informed decision-making. This approach ensures that education policies and programs are based on the most up-to-date and comprehensive information.

The Learner Information System is a crucial component of the DepEd's efforts to improve education in the Philippines. Maintaining a centralized registry of learners provides accurate data for decision-making and helps support various administrative activities. Integrating the Learner Information system with the EBEIS enhances the efficiency and effectiveness of the educational sector's management information system, providing the necessary information for informed decision-making and planning (Alter, 2002).

Despite the efforts of the DepEd to improve the collection, processing, and analysis of educational data in the Philippines through the EBEIS and LIS portals, some challenges still need to be identified. One of the challenges is the need for internet access, resulting in a lag time when accessing online data, forcing teachers and school heads to travel to areas with internet access to upload data (Read and Atinc, 2017). Additionally, the online system should provide access to school-based data for school and local officials, but it cannot offer comparative analysis. This highlights the need for further improvements to address these challenges and ensure the efficient and effective functioning of the MIS in the education sector. Moreover, the lack of adequate infrastructure in some schools can impact the ability of teachers and staff to utilize technology in their teaching and reporting activities (Mateo, 2018). This highlights the need for ICT and school infrastructure investment to ensure the successful implementation and use of technology solutions like EBEIS and LIS. Additionally, the agency needs to provide adequate training and support to school personnel to effectively utilize these systems and overcome any challenges they may encounter.

A rumored corruption was news that some school heads bloated the enrollees by entering an excessive number into the system. This could help increase financial allocation for maintenance and other operating expenses (MOOE) (Alipala and Jerusalem, 2017). This can have profound implications as it distorts the actual enrolment data and misallocates educational resources. The DepEd needs to address this issue by implementing measures to prevent and detect this kind of irregularity and ensure the accuracy of the enrolment data. It may include regular audits and monitoring of the data reported by schools and imposing penalties for those who engage in such activities.

These reported incidents of corruption and inaccuracies in data reporting to compromise the goals and objectives of the management information system in promoting transparency, informed decision-making, and empowerment of the educational system (Alipala and Jerusalem, 2017). It creates difficulties in effectively using data to improve educational programs, projects, and interventions for schools and learners. To address these issues, the

Department of Education may need stricter measures to ensure the accuracy and integrity of data reported and support schools in implementing the information management system effectively.

Improved data collection and analysis can lead to better decision-making and improved outcomes in education (Mardiana, et al, 2015). For example, by tracking student performance data, school administrators can identify areas where students struggle and allocate resources more effectively to address those challenges. Similarly, tracking data on program implementation can help educators assess the effectiveness of different programs and make informed decisions about which programs to continue or discontinue. However, it is essential to ensure the data's accuracy and integrity and use it ethically and transparently.

The researchers aim to determine the effectiveness of the EBEIS/LIS data in supporting school management and decision-making and to identify areas for improvement using data for school management. By conducting a thorough analysis of the EBEIS/LIS data and the challenges that schools face in using the system, the researchers aim to provide recommendations for enhancing the use of data for effective and efficient school management. The researchers believe this study will improve the education system through informed decision-making and utilizing accurate and timely information.

### **Objectives of the Study**

The study assessed the EBEIS/LIS data and school management by the Department of Education among public secondary schools in Bohol.

Furthermore, it aimed to delve deeper into the following areas: level of satisfaction with using EBEIS/LIS data in school management; the level of satisfaction with the personnel's performance in facilitating data for school management; level of satisfaction on ICT facilities for data in school management; and level of satisfaction on information literacy in facilitating data for school management. It also determines the significant relationship between the following: level of satisfaction with the personnel's performance and usability of EBEIS/LIS data for school management; personnel's performance and the ICT facilities in facilitating data for school management; personnel's performance in facilitating data for school management and information literacy; and information literacy and the usability of EBEIS/LIS data for school management.

## Materials and Methods

The study used a descriptive method using a survey questionnaire conducted in 52 public secondary schools in the province of Bohol using stratified sampling. The questionnaires consisted of 60 questions to assess satisfaction with the usability of EBEIS/LIS data, six questions for satisfaction with ICT facilities, 15 questions for satisfaction with information literacy, and 21 questions for satisfaction with personnel's performance. The reliability of each set was checked using Cronbach's coefficient alpha, with  $\alpha$  values ranging from 0.691 to 0.933. There were 662 participants, consisting of 48 principals/school heads, 52 coordinators, and 562 class advisers. However, the sample size for class advisers was calculated using the Cochran formula. The data was gathered by securing approval from relevant authorities and through google forms in case of unavailability for face-to-face interaction due to COVID-19. The satisfaction scale ranges from 1.00 to 4.00, with 1.00-1.74 indicating not satisfied, 1.75-2.49 indicating slightly satisfied, 2.50-3.24 indicating moderately satisfied, and 3.25-4.00 indicating very satisfied.

## Results and Discussion

Anchored on the results of this study, the findings are summarized as follows:

**Table 1. Satisfaction with using EBEIS/LIS data in school management perceived by Administrators, Coordinators, and Teachers.**

SCHOOL MANAGEMENT	WM	DV
Learners' Management	3.27	VS
Personnel Management	3.01	MS
CurriculumManagement	2.97	MS
Physical FacilitiesManagement	3.22	MS
Financial Management	3.18	MS
CommunityExtension Service	3.02	MS
School Governance	3.16	MS
<b>OVER-ALL COMPOSITE MEAN</b>	<b>3.12</b>	<b>MS</b>

*Legend: 3.25 - 4.00 Very Satisfied (VS), 2.50 – 3.24 Moderately Satisfied (MS), 1.75 – 2.49 Slightly Satisfied (SS), 1.00 – 1.74 Not Satisfied (NS)*

The result revealed that 3.12 or moderately satisfied with using data for school management. By involving all stakeholders in the process and utilizing real-time data, the EBEIS/LIS will help the DepEd make informed decisions and allocate resources effectively to support the

development of the education sector in the Philippines. The system will also play a critical role in monitoring the progress of education initiatives and ensuring accountability and transparency in the education sector. Implementing the EBEIS/LIS is a significant step towards achieving the DepEd's goal of providing quality education for all Filipino learners (Department of Education, 2014, para. 1).

The integration of information systems significantly impacted managerial effectiveness in various ways. One of the primary benefits of information systems is that they allow managers or administrators to access the information they need quickly and easily. With the help of these systems, one can gather data, analyze it, and make informed decisions based on the results (Shah, 2014).

Moreover, data input in the computer is effective in making managerial decisions because it enables managers to store and organize large amounts of information in a centralized location. This information can be easily accessed and used to support decision-making processes (Odhiambo, 2017). In this way, there would be an increase in the organization's efficiency, productivity, and profitability (Karim, 2011).

**Table 2. Satisfaction with the Personnel's Performance in facilitating data for school management as perceived by Administrators, Coordinators, and Teachers.**

PERSONNEL'S PERFORMANCE	WM	DV
Class Advisers	3.65	VS
School LIS/E-BEIS Coordinator with The School Head	3.64	VS
District LIS/E-BEIS Coordinator and PSDS	3.55	VS
<b>COMPOSITE MEAN</b>	<b>3.61</b>	<b>VS</b>

*Legend: 3.25 - 4.00 Very Satisfied (VS), 2.50 – 3.24 Moderately Satisfied (MS), 1.75 – 2.49 Slightly Satisfied (SS), 1.00 – 1.74 Not Satisfied (NS)*

It revealed a 3.61 or very satisfied, showing how the class advisers are doing well. Indeed, these teachers keep the learners' data and follow the roles and responsibilities in enrolling, reporting, and updating the students' information. It also exposes a good relationship between the coordinator with the school head. This also reflects that these personnel performed their functions in issuing, checking, and updating the classroom advisers regarding their roles and responsibilities in enrolling and updating the learner's information. It includes gathering the school's data about the school for the beginning and end of the school year. Meanwhile, the District LIS/E-BEIS Coordinator and PSDS have carried out their duties and responsibilities

accordingly as they monitor the data updates and provide technical assistance to every school as mentioned in the DepEd LIS and E-BEIS Coordinator Duties and Responsibilities [11].

The technical competence of support personnel is crucial in addressing complexities associated with system attributes. Their responsiveness in responding to complaints is also essential for providing satisfactory service to users. When users encounter issues with a system or service, they rely on support personnel to resolve the problems effectively and efficiently. Therefore, technically competent, and responsive support personnel is essential for ensuring a positive user experience and high user satisfaction (Ajoye and. Nwagwu, 2014).

**Table 3. Satisfaction with ICT Facilities for data management as Perceived by Administrators and Teachers.**

ITEMS	Overall Perception	
	WM	DV
<b>Facilities</b>		
1. Sufficiency of power supply for the users in the school.	3.50	VS
2. Internet connectivity throughout the campus is used to access the EBEIS/LIS.	2.29	SS
3. Availability of phone signal used to access EBEIS/LIS.	2.84	MS
4. Several computers or laptops are used to access EBEIS/LIS.	3.06	MS
5. Number of comfortable computer laboratories as alternative places for accessing EBEIS/LIS.	2.57	MS
6. Availability of published/printed manuals and guidelines on accessing the EBEIS/LIS inside the facilities.	2.43	SS
<b>COMPOSITE MEAN</b>	<b>2.78</b>	<b>MS</b>

*Legend: 3.25 - 4.00 Very Satisfied (VS), 2.50 – 3.24 Moderately Satisfied (MS), 1.75 – 2.49 Slightly Satisfied (SS), 1.00 – 1.74 Not Satisfied (NS)*

This information highlights a significant challenge in implementing the EBEIS/LIS system, as internet connectivity is a crucial factor in ensuring the effective and efficient use of the system. The low satisfaction rating (2.29 or slightly satisfied) with internet connectivity suggests that many schools in the division still need help accessing the internet, which can make it difficult for them to use the EBEIS/LIS effectively.

The DepEd needs to address this issue and find ways to improve internet connectivity in schools, as this will play a critical role in ensuring the success of the EBEIS/LIS system. This



could include working with local governments and telecommunications companies to provide internet access in remote or under-serviced areas or training and support for teachers and school heads unfamiliar with using the internet (Fragata, 2019).

Having strong internet connectivity will allow for smoother and more reliable online learning experiences for both of them and could provide timely submission of the data required (Agayon et al, 2022).

While the availability of posted/printed manuals and guidelines on accessing the EBEIS/LIS inside the facilities was rated 2.43 or slightly satisfied, supporting documents for posted and printed materials can include various materials that provide additional context, information, or explanation for the main document. This emphasizes the importance of published or printed manuals as part of the resources where employees will be provided with knowledge on the company or individual responsibilities (Al'Adawi, 2017).

Providing hard copies of some approaches can benefit teachers and staff who may need to access the system frequently in the context of DepEd schools. Printed manuals can be a helpful reference tool, allowing employees to easily access the information they need to perform their duties effectively (Fragata, 2019).

It is important to note, however, that in addition to printed manuals, it is also essential to ensure that electronic resources are available and easily accessible for those who prefer digital resources (Pastor, 2021). Providing printed and digital resources can ensure that all employees can access the information they need in the best format (Jimenez, 2021). Providing manuals and guidelines, whether in print or electronic form, can be essential to supporting employee knowledge and performance in accessing and using systems effectively.

**Table 4. Satisfaction on Information Literacy in facilitating data for school management as Perceived by Coordinators and Teachers.**

ITEMS	Overall Perception	
	WM	DV
1. I am satisfied with the seminars, training, and workshops I attended	2.80	MS
<i>The seminars/training/workshops I have attended on the EBEIS/LIS have...</i>		
2. explained the processes and guidelines for using the system for registering, enrolling, and updating learner profiles.	2.93	MS
3. capacitated participants in the system's operation and User Account Management System.	2.81	MS

4. Understand the purpose, roles, and processes in managing access to information systems through the User Account Management System (UAMS).	2.81	MS
5. Helped me experience creating and maintaining user accounts for the different information systems.	2.77	MS
6. Helped me to experience the available functionalities of the portal.	2.76	MS
7. Provide resource speakers that share informative explanations.	2.77	MS
8. It helped me improve my technical skills in using the portal.	2.78	MS
9. clarified the concepts through discussion.	2.78	MS
10. corrected misunderstanding on prior ideas about the portal.	2.82	MS
11. encouraged sharing ideas and learning from others.	2.89	MS
12. gave more engagement in different activities.	2.73	MS
13. discussed the importance of data to school management	2.93	MS
14. Discussed the importance of data for school improvement and development.	2.95	MS
<b>COMPOSITE MEAN</b>	<b>2.83</b>	<b>MS</b>

*Legend: 3.25 - 4.00 Very Satisfied (VS), 2.50 – 3.24 Moderately Satisfied (MS), 1.75 – 2.49 Slightly Satisfied (SS), 1.00 – 1.74 Not Satisfied (NS)*

The moderate satisfaction rating of 2.83 indicates room for improvement in implementing and using the EBEIS/LIS system. Still, it also demonstrates the potential for the system to play a vital role in supporting education initiatives in the Philippines.

An accurate and reliable registry of learners, schools, and learning centers is crucial for effective planning and budgeting in the education sector. It provides a comprehensive picture of the resources and support needed to provide quality basic education to all learners (Department of Education, 2022, para. 4). This information can also be used to monitor progress and track the impact of education initiatives, ensuring accountability and transparency in the education sector. In addition, the availability of data and information through the EBEIS/LIS will support allocating resources and setting operational targets to ensure every learner has access to quality basic education. This is especially important for learners in marginalized and disadvantaged communities, often overlooked and underserved in the education sector.

Moreover, the purpose of the seminars related to the EBEIS and LIS they attended revealed that it gave less emphasis on providing more engagement in different activities (Al'Adawi, 2017). Engaging in critical thinking and other active learning activities is essential for personal and professional development. Raising questions, sharing ideas, and enhancing communication

and presentation skills are crucial components of active learning that help individuals become more engaged, confident, and effective learners.

By changing the role of participants from passive listeners to active participants, they can take control of their learning and shape their knowledge and understanding in meaningful ways. This engagement promotes collaboration, teamwork, and relationship building, all critical skills for success in today's rapidly changing and highly interconnected world.

Engaging in critical thinking and other active learning activities is an integral part of personal and professional development which could boost confidence, effectiveness, and more engaged learners. Active learning is a powerful tool for growth and success, whether in a classroom, workplace, or personal life.

While the availability of posted/printed manuals and guidelines on accessing the EBEIS/LIS inside the facilities was rated 2.43 or slightly satisfied, supporting documents for posted and printed materials can include various materials that provide additional context, information, or explanation for the main document. This emphasizes the importance of published or printed manuals as part of the resources where employees will be provided with knowledge on the company or individual responsibilities (Al'Adawi, 2017).

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**Table 5. Relationship between Personnel's Performance and the Usability of EBEIS/LIS Data for School Management.**

SCHOOL MANAGEMENT	Spearmanrho testvalue	p-value @ $\alpha=0.05$	Decision
1. Learners Mgt.	0.486	0.00	Significant, Ho:Rejected
2. Personnel Mgt.	0.338	0.00	Significant, Ho: Rejected

3. Curriculum Mgt.	0.410	0.00	Significant, Ho:Rejected
4. Physical Facilities Mgt.	0.418	0.00	Significant, Ho: Rejected
5. Financial Mgt.	0.451	0.00	Significant, Ho:Rejected
6.Community Extension Services Mgt.	0.417	0.00	Significant, Ho: Rejected
7. School Governance Mgt.	0.465	0.00	Significant, Ho:Rejected
<b>Overall Management</b>	<b>0.478</b>	<b>0.00</b>	<b>Significant, H<sub>0</sub>: Rejected</b>

Spearman's rho value of 0.478 with a p-value of 0.00 would suggest a highly significant relationship between the two variables being studied. Specifically, as one variable increase or decreases, the other variable tends to follow suit predictably, and the strength of this relationship is relatively strong (since a rho value of 0.478 is moderate to high).

Studies have shown that school management information systems like the EBEIS/LIS are critical in supporting school managers in making effective and efficient decisions. With the increasing pace and complexity of decision-making in today's schools, accessing reliable and up-to-date information is more important than ever (Essien, et al., 2016).

The EBEIS/LIS system provides school managers with a wealth of data and information to help inform their decision-making processes. By tracking learners, schools, and learning centers, the system provides valuable insights into the education landscape and helps identify areas of need and opportunity (Balinas, 2018).

It's also important to note that the decision-making process in schools is not just about access to data but also about the ability to analyze and use that data effectively. The EBEIS/LIS system provides a data analysis and visualization platform to help school managers understand complex relationships among data and make informed decisions. (Decors & Generator, 2021)

The data management helps the schools' decision-making so they can provide policies and programs aligned with the goals and objectives of the agency. Therefore, it is essential to let the personnel know their duties and responsibilities in data management for an online system so they will value the importance of those variables for future use. With the data information

gained, such personnel can manage the organizations efficiently and effectively. (Yuvienco, 2019)

**Table 6. Relationship between Personnel’s Performance in Facilitating Data for School Management and ICT Facilities.**

ITEMS	Spearmanrho test value	p-value @ $\alpha=0.05$	Decision
1. Class Adviser	0.017	0.91	Insignificant, $H_0$ : Accepted
2. School LIS/E-BEIS Coordinator with The School Head	-0.114	0.441	Insignificant, $H_0$ : Accepted
3. District LIS/E-BEIS Coordinator And PSDS	-0.014	0.923	Insignificant, $H_0$ : Accepted
<b>Overall Performance</b>	<b>-0.064</b>	<b>0.667</b>	<b>Insignificant, <math>H_0</math>: Accepted</b>

The Spearman's rho value of -0.064 with a p-value of 0.667 would suggest insufficient evidence to conclude a significant relationship between the two studied variables. Specifically, it would suggest no clear or predictable relationship between the two variables, and any observed correlation may be due to chance. This, in turn, showed that there were no compromises made at the beginning of the E-BEIS implementation aside from the lag time experienced when data is accessed online; it forced the teachers and school heads who lack internet connectivity in schools to go to distant places where there is an internet available to upload their data, sometimes even through the night (Read, 2017). In this case, teachers took the initiative to satisfy this technological lag. The absence of information technology gadgets like internet connection, computer hardware, etc., did not hinder their duties and functions.

ICT facilities can help to ensure compliance with legal and regulatory requirements for record-keeping, such as retention periods and privacy regulations. With the increasing amount of data, organizations generate and manage, using ICT facilities for record management is becoming essential (Chidobi, 2015).

**Table 7. Relationship between Personnel’s Performance in facilitating Data for School Management and the Information Literacy.**

ITEMS	Spearmanrho testvalue	p-value @ $\alpha=0.05$	Decision
1. Class Adviser	0.242	0.084	Insignificant, H <sub>0</sub> : Accepted
2. School LIS/E-BEIS Coordinator with The School Head	0.46	0.001	Significant, H <sub>0</sub> : Rejected
3. District LIS/E-BEIS Coordinator and PSDS	0.368	0.007	Significant, H <sub>0</sub> : Rejected
<b>Overall Performance</b>	<b>0.366</b>	<b>0.008</b>	<b>Significant, H<sub>0</sub>: Rejected</b>

A Spearman's rho value of 0.366 with a p-value of 0.008 would suggest a statistically significant relationship between the two variables being studied. Specifically, as one variable increase or decreases, the other variable tends to follow suit predictably. However, the strength of this relationship may need to be stronger (since a rho value of 0.366 is relatively low).

Information literacy is becoming increasingly important in the modern workplace as technology advances and the volume of information available grows. (Poopola & Tabuke, 2021)

This personnel stresses the importance of information literacy for professional development. Attending seminars, training, and workshops is an effective way to develop information literacy skills and stay informed about the latest advancements in the field (Read, 2017). These events allow professionals to engage with peers, learn from experts, and discuss the latest trends and challenges in the area. In the context of EBEIS/LIS, attending seminars and training can help personnel develop the skills they need to effectively use the system and leverage its capabilities to support decision-making and improve education outcomes. It also provides a platform for information sharing and collaboration, which can help personnel learn from each other's experiences and insights.

By investing in employee information literacy training, employers can ensure that their workforce is equipped with the skills to navigate the information landscape effectively and deliver results that drive business success (Sani and Musa, 2019).

Moreover, workshops can benefit hands-on learning, allowing personnel to apply the skills and knowledge they've gained in a practical setting and receive feedback from experienced facilitators (Igbinoia, 2016). Attending seminars, training, and workshops is indispensable. These events provide valuable opportunities for personnel to develop their information literacy skills, learn from experts and peers, and collaborate with others in the field. By investing in their professional development, they could support the goals of the EBEIS/LIS system and improve education outcomes for learners.

**Table 8. Relationship between Information Literacy and the Usability of EBEIS/LIS Data to School Management.**

School Management	Spearmanrho test value	p-value @ $\alpha=0.05$	Decision
1. Learners Mgt.	-0.115	0.417	Insignificant, H <sub>0</sub> : Accepted
2. Personnel Mgt.	-0.202	0.152	Insignificant, H <sub>0</sub> : Accepted
3. Curriculum Mgt.	-0.262	0.060	Insignificant, H <sub>0</sub> : Accepted
4. Physical Facilities Mgt.	-0.229	0.103	Insignificant, H <sub>0</sub> : Accepted
5. Financial Mgt.	-0.281	0.044	Significant, H <sub>0</sub> : Rejected
6. Community Extension Services Mgt.	-0.253	0.070	Insignificant, H <sub>0</sub> : Accepted
7. School Governance	-0.201	0.154	Insignificant, H <sub>0</sub> : Accepted
<b>Overall Management Rating</b>	<b>-0.276</b>	<b>0.048</b>	<b>Significant, H<sub>0</sub>: Rejected</b>

A Spearman's rho value of -0.276 with a p-value of 0.048 would suggest a statistically significant relationship between the two variables being studied in financial management, specifically, as one variable increases, the other decreases, and vice versa. However, the strength of this relationship may be weak (since a rho value of -0.276 is relatively low).

Data information literacy is becoming increasingly important in our data-driven world. Integrating it with traditional information literacy competencies can help ensure that individuals and organizations have the skills and knowledge to access, evaluate, use, and communicate data effectively (Mooney, 2014).

Information literacy plays a crucial role in supporting self-mastery and professional development. By attending in-service training, seminars, and workshops, personnel can acquire new knowledge and skills to help them perform their job more effectively and efficiently (Essien, et al., 2016)

In the context of EBEIS/LIS, these training opportunities can help personnel better understand the system's capabilities and how they can support their work. They can also help personnel develop the information literacy skills they need to use the system effectively and make informed decisions.

Additionally, attending seminars and workshops can provide a platform for information sharing and collaboration, which can help personnel learn from each other's experiences and insights. By engaging in these activities, personnel can boost their self-mastery and support their professional development.

### **Conclusion and Recommendation**

The personnel performs well when satisfied with the EBEIS/LIS data processes. However, they can still comply with their function and responsibilities in online data management regardless of the challenges in ICT facilities and with less guidance from their coordinators. Meanwhile, information literacy is essential in using EBEIS/LIS data in school management, particularly in intensifying the purpose of seminars and training regarding data management.

To utilize the findings of this study, the researcher recommends the following: (1) The Division Office must be proactive in outfitting Management and Information Technology training and workshops for all system end-users. Namely, classroom advisers and system coordinators, primarily newly assigned personnel, at least once every year or depending on how often system updates can be streamlined. The development team shall disseminate these training and workshops to ensure optimal knowledge and skills absorption; (2) the coordinators have to provide a streamlined copy of the EBEIS/LIS manual to be used by classroom advisers as reference material to facilitate proper access and improve system usability; (3) the schools must continue to look for ways to strengthen their support in acquiring internet connectivity by partnering with internet service providers and urging them to optimize the stability of their



connection, especially in remote areas; and (4) the schools, with the support of the parents and the stakeholders, must further their creation of online information management systems such as for physical facilities, curriculum, financial, community extension service, and personnel management. These additional portals will be created separately and connected to the EBEIS, much like with LIS, so a different coordinator will focus on each portal's updates. This move can boost data collection and provide well-rounded information linked within the EBEIS environment.

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