

Qualitative Exploration of The Basic Education Information System Data Management Practices in the Schools Division of Zambales

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ABSTRACT : This qualitative study examined the data management practices within the Basic Education Information System of School Heads and Senior High School Personnel in the Schools Division of Zambales. Specifically, the study sought to examine the experiences, challenges, coping, and support systems, and perceptions of the effectiveness of BEIS on their day-to-day work. Using qualitative methodology, data was collected from school heads and senior high school personnel in large secondary schools in Zambales through in-depth semi-structured interviews. The findings revealed five major themes: increased workload and compliance task perception, complexities of data accuracy, collaboration and communication as key practices, need for capacity-building and technical support, and the positive perceptions about BEIS. This concludes that while BEIS is strategically important in educational governance, it also encounters major operational challenges, which prevent it from boosting its effectiveness, technical problems and lack of formal support. The recommendations include building a data-driven culture, enhancing workload efficiencies by harnessing compliance data, setting up formal BEIS teams, providing ongoing and role-specific training support for the technical system and seeking regular user input and feedback on BEIS' benefits for enhancing the system. It is essential to tackle these areas in order to fully actualize the BEIS's potential for effective, transparent and accountable educational administration.

KEYWORDS : Basic Education Information System, data management practices, educational governance, large secondary schools, qualitative exploration

I. INTRODUCTION

The Department of Education recognizes accurate and reliable data as one of the most important resources specially in this age of digital transformation. The Basic Education Information System (BEIS) of the Department of Education captures datasets that are imperative in allocating crucial resources, budgeting, policymaking, program development, and monitoring and evaluation to enrich the delivery of quality basic education (DepEd Memorandum No. 031, s. 2025). It is a web-based system designed to support and enhance information management at all levels of governance from the national level down to the school level.

Globally, according to Herstein and Hua, (2023) successful management of today's education systems requires effective policy making and system monitoring through data and information. Countries around the world have invested significant resources into collecting, processing, and managing more and better data through education management information systems. However, all too often this design and development has been limited to information technology enhancements, and/or data storage and maintenance, with insufficient attention paid to the management environment in which education management information system operates and data utilization for policy decisions.

In the Philippines, the DepEd's Basic Education Information System is one of the official platforms for collecting school and learner data used for resource allocation, reporting, and policy (ebeis.deped.gov.ph, 2025). Achieving the desired results for effective local data management proves challenging in the Philippines due to the need for standardized data management procedures. Accurate documentation and data organization are crucial for readily available analysis, enabling the identification of patterns and trends essential for informed decision-making (Asuncion, 2025).

At the school level, effective data management of the Basic Education ensures that educational planning and reporting are evidence-based (BEIS, 2025). However, despite its importance many BEIS users face challenges in handling effective data management such as inaccurate records and delayed submissions. These difficulties often stem from inconsistent data sources, multiple responsibilities, inadequate training and limited technological resources which affects educational planning and resource allocation. Ensuring the reliability and

integrity of the basic education data, therefore, requires a deeper understanding of how school the school head and school personnel actually perform and perceive data management tasks in their daily work.

This study sought to explore the practices of school head and senior high school personnel in handling the Basic Education Information System highlighting their experiences, challenges, and perspectives. Understanding these processes from the perspective of school heads and school personnel would help identify existing gaps in capacity, support systems, and institutional processes. The findings are expected to serve as a basis for improving school-level data management processes from data gathering, validation procedures up to the uploading of data in the BEIS. By understanding the experiences of the school heads and school personnel as end-users, the department can provide the applicable support and formulate a responsive capacity building program. It can also raise awareness of the importance of accurate data handling and encourage better collaboration and responsibility in maintaining information integrity. Exploring the practices of school head and senior high school personnel in BEIS data management accentuates the crucial role of user-related factors and organizational support for ensuring that educational information systems truly serve its purpose in enhancing public service delivery, and supporting quality education for all learners.

II. LITERATURE REVIEW

Overview of the Basic Education Information System

Educational information systems play a crucial role in the systematic improvement of education around the world, having a significant impact at the individual and institutional levels in addition to managing technical data (Benhabib & Berrado, 2025). They are crucial for improvement initiatives within complex and dynamic educational landscapes. However, there are noted gaps in the interconnectivity and overall coherence of Education Management Information Systems across national and international levels, highlighting the necessity for robust information system strategies to support governance and transformation. The accelerated digital transformation in education has significantly increased the use of digital technologies, which are now vital resources for education systems (OECD, 2023).

The Department of Education generates essential educational statistics regarding the performance and internal efficacy of the basic education sector every year. One of the sources of these education data is the Basic Education Information System (Albert, 2016). With the help of the Australian Aid in the year 2011, the Department of Education elevated the BEIS into the Enhanced Basic Education Information System (EBEIS), which has considerably reduced the reporting gap by implementing its online data submission mechanism. According to DepEd Order No. 39, s. 2011, The Enhanced Basic Education Information System is a web-based system that maintains a database of public and private schools' education statistics. The BEIS and EBEIS work together to enhance the management and reporting of educational data in the Philippines. These systems were developed due to the urgent need to improve the collection of data from schools and streamline data management processes to deliver timely, relevant and accurate information to effectively support planning, budgeting, formulating policies and other decision-making activities at various levels of the education system i.e. school, division, regional and national levels. The Learner Information System and other DepEd systems are connected to BEIS. According to Albert (2016), BEIS is crucial for creating educational indicators that the Philippine government utilizes to stay focused on quality, efficiency, and accessibility in the basic education sector.

The School Head will be able to download the School Profile template and upload it once it has been accomplished and to be assisted by the Non-teaching personnel in gathering, validating and encoding using the BEIS data gathering forms such as the Government Elementary School Profile, Government Junior High School Profile, Government Senior High School Profile, Private School Profile and State and Local Universities and Colleges School Profile.

The Role of Data in Educational Management

The efficiency and effectiveness of using technology in data management have led to a significant increase in its application in educational management. The integration of information systems has a substantial impact on the efficacy of management and recognizing these systems make it possible for managers and administrators to swiftly and readily access the information they require. According to Shah (2014), data-driven education administration is acknowledged as a cutting-edge strategy that empowers educational establishments to gather, analyze, and utilize data for better decision-making and higher-quality instruction. With the help of these systems, one is able to collect data, perform analysis on it, and then make decisions based on the results that are informed.

Many nations globally have invested substantial resources yet continue to face challenges in establishing an effective Education Management Information System. Conversely, nations that have established effective systems are leveraging data to enhance educational outcomes (Abdul-Hamid, 2017). A growing number of countries are implementing web-based dissemination of the EMIS which makes education systems becoming more open and transparent as it systematically organizes information from all levels of the education system, gathering and administering essential data points such student enrollments, number of teachers, and

class sizes. This Education Management Information System generates data that is highly valuable for the implementation, and evaluation of educational programs (Custer et al., 2018).

Access to reliable and accurate information is crucial for informed decision-making within the Philippine education system. Online information systems are prioritized to supply data for critical functions such as planning, budgeting, resource allocation, and achieving operational targets. The overarching goal of information-based decision-making in education management is to broaden access, improve efficiency, enhance effectiveness and equity, and elevate the quality of education (Ibrahim et al., 2020).

The Department of Education (DepEd) developed the Basic Education Information System to improve the collection of data from the schools and efficiently render delivery of information to various stakeholders (BEIS, 2025). The system was designed to integrate school data into one comprehensive database that support educational planning and monitoring.

Data Management Practices in Schools

Data management refers to the systematic process of collecting, organizing, validating, and using information to support school operations and decision-making. Effective data management in schools are essential for operational efficiency and well-informed decision-making on a global scale. However, the strategic use of accessible data is frequently hampered by issues including fragmented data collection and a lack of recognized standards (Mohseni et al., 2024). To ensure the systematization and generation of data on educational outcomes and development, it is acknowledged that organizational strategies for managing digital databases, which include educational data, must be developed (Fiofanova et al., 2020). Digital transformation illustrates how efficient data collection, analysis, and utilization can lead to faster, evidence-based decision-making, while also increasing transparency and accountability (Yuniarti et al., 2024).

In the Philippines, educational institutions have adapted to flexible learning environments, necessitating that all personnel undergo orientation and training for their respective Management Information Systems. However, Lopez and Lorejo (2023) observed that users experience difficulties with system navigation and data encoding errors, which affect the overall reliability of BEIS data. Some schools still struggle ineffective manual record-keeping, trouble retrieving data, and the possibility of data loss because of insufficient backup processes. These challenges underscore the pressing need for technology-driven solutions to streamline records management and ensure data security (Enad & Balicoco, 2023).

Challenges and Opportunities in BEIS Implementation

Several studies have pointed out that while BEIS has greatly improved data consolidation in Philippine schools, it continues to face implementation challenges. Studies highlight various challenges encountered by both private and public educational institutions in the Philippines concerning their existing management information systems. While these systems represent an attempt to systematize and organize institutional services, their implementation often brings to light practical difficulties (Asio et al., 2022). Drawing parallels with health information systems, common challenges include the inability to update databases due to inadequately trained personnel, reliance on offline facilities, unstable internet connectivity, technical issues, and non-uniform reporting. Such issues can lead to fragmented and inaccessible data (Tinam-isan & Naga, 2024). On the other hand, BEIS also offers significant opportunities for school improvement. When managed effectively, BEIS data can guide school heads in planning interventions, allocating resources, and monitoring student performance. The Department of Education highlights that accurate and timely BEIS data allow schools to participate more actively in strategic planning and performance-based management.

The reviewed literature underscores the vital role of BEIS in strengthening educational management in the Philippines. However, the effectiveness of the system largely depends on how school personnel handle data at the school level. This gap highlights the need for a qualitative exploration of BEIS data management practices of school head and senior high school personnel. By understanding the human and organizational aspects of data management, this study seeks to contribute to improving data quality, promoting accountability, and enhancing the overall effectiveness of the Basic Education Information System (BEIS) in supporting evidence-based educational planning.

III. RESEARCH METHODOLOGY

Research Design

This study adopted a qualitative research design, specifically used a phenomenological approach to explore the practices of school head and senior high school personnel in managing data within the Basic Education Information System (BEIS). Specifically, a descriptive phenomenological approach was utilized. This approach allowed the researcher to capture the actual practices, challenges, and perceptions of data management users involved in Basic Education Information System operations. The qualitative design was appropriate since the study aimed not to quantify variables but to provide an in-depth understanding of BEIS data management as experienced in real school contexts.

Sampling

The study utilized non-probability sampling technique specifically purposive sampling to select participants. A total of 15 participants from a large size secondary schools in the Schools Division of Zambales were selected based on their experience and active involvement with BEIS processes within the research locale. This sampling method ensured that the information gathered came from individuals with rich and relevant experiences related to BEIS data management.

Data Collection

Data were collected through semi-structured interviews conducted face-to-face and via online platforms to accommodate participants' geographical locations and schedules, ensuring broader participation. Interviews were conducted in Filipino or English, depending on the participant's preference, and each session lasted approximately 30 to 40 minutes.

Data Analysis

Thematic analysis was used following Braun and Clarke's (2006) framework. The data gathered will be transcribed, coded, and categorized into themes that reflected participants' common experiences and insights. Through this process, the researcher was able to draw meaningful insights into how the school head and senior high school personnel experience, including the challenges they encountered, and how these experiences shape their perceptions of the system's usefulness and efficiency in managing BEIS Data.

IV. RESULTS AND DISCUSSION

The study explored the practices of School Head and Senior High School Personnel in the Data Management of Basic Education Information System. The in depth semi-structured interviews conducted revealed five main themes which consistently surfaced, offering a rich understanding of the daily school level practices of the participants.

Theme 1: Increased Workload and the Sense of Data Collection as Compliance Task

Some participants described the implementation of BEIS as introducing a significant increase in their workload especially nowadays that all administrative tasks were already given to the non-teaching personnel. The process of data entry, verification, and report generation was perceived as time-consuming. Many personnel reported spending considerable time manually encoding data and spend additional time cross-referencing and correcting discrepancies. Even though they find it time consuming, majority of the participants believed that manual preparation remains a fundamental step before data encoding in the BEIS template. While the stated purpose of BEIS is to support data-driven decision-making, many personnel felt that the system primarily served compliance and reporting requirements rather than empowering them with actionable insights for school improvement. "Pag nasubmit na yong data, end na, hindi na ito nababanggit during general meeting sa school kaya parang nagiging for compliance lang ang mga data". -Participant H. "Madalas sabay sabay ang mga reports pati ang mga deadlines nito, kaya kahit gusto naming e double check ang mga data, nagagahol kami palagi sa oras, at dahil marami ang tasks sa school at mga seminars na kailangan attendan, we lacked time to conduct meaningful analysis regarding the data that we gathered – Participants M.

The implementation of the Basic Education Information System (BEIS) has notably increased the workload of school personnel, especially given that many administrative responsibilities have already been delegated to non-teaching staff. While education management information system is designed to adequately distribute workload and improve efficiency, the reality for school head and senior high school non-teaching personnel often includes issues with system acceptance and adoption, despite potential performance improvements (Shishakly et al., 2020). This gap between intent and reality means that, for senior high school non-teaching personnel and school heads, the implementation of these educational data systems frequently results in an increased workload and a predominant focus on compliance. The importance of data for local decision-making can frequently be overshadowed by the emphasis on simply finishing the BEIS data (Santoso et al., 2020). As Participant M stated, it highlights how competing demands prevent deeper engagement with the collected data specifically the capacity to utilize data for meaningful school improvement.

Theme 2: Navigating the Complexities of Data Accuracy

Participants highlighted errors and inconsistencies as one major challenges in managing BEIS data and this was often exacerbated by systems that have technical glitches. "May templates na ndownload namin pero na my mga errors, marami na kaming nasagutan, only to find out sa bandang huli na may problem ang template na iupload at meron ding pagkakataon na hindi ma upload yong filled out template, kaya back to zero kami sa encoding". – Participants H

To start the data collection process, the school head downloads the template from the BEIS dashboard and distributes the other paperwork to the head teachers and non-teaching personnel. The school head remains with several templates to complete. As much of the data coming from them involves information about teachers and students, participants F, J, L, and O shared that they frequently had to go back to some teachers to cross check the information they provided, particularly when it came to the number because most of the data were found to be incomplete and with discrepancies.

The challenges in ensuring data accuracy in the implementation of BEIS is well illustrated by

participants' experiences of errors, inconsistencies, and technical glitches in the BEIS data templates. Participant H described downloading templates with errors or experiencing failed uploads, leading to extensive re-encoding efforts. This situation frequently resulted in a "back to zero" scenario for data entry. These challenges reflect wider systemic issues in BEIS data management. Research shows that despite BEIS being a key tool for consolidating education data in the Philippines, technical problems such as faulty templates and upload failures disrupt the data entry process and cause delays, forcing staff to redo encoding from scratch (Lopez and Lorejo 2023).

The difficulties faced by the school head and senior high school personnel in accurately inputting data suggest that despite its intent to streamline processes, the system can inadvertently become a source of inefficiency and error (Forrester, 2019). The necessity for meticulous cross-checking, as shared by Participants F, J, L, and O who frequently had to verify information about teachers and students due to incompleteness and discrepancies, further emphasizes the inherent unreliability often encountered at the school level. The experiences of the participants strongly advocate for robust data quality monitoring, including verification processes at the school level, to identify and rectify errors and ensure that collected data genuinely supports well-informed decision-making and policy formulation (Santoso et al., 2020).

Theme 3: Collaboration and Communication as Key Practices

Despite the numerous challenges, school heads and personnel demonstrated remarkable resilience and developed various informal strategies to cope with and adapt to the demands of BEIS data management. Participants emphasized the importance of teamwork and effective communication among school personnel to manage BEIS data. Coordination among teachers and personnel especially the BEIS and ICT coordinator, and the school head helped ensure that data were cross-checked and submitted on time.

"We can't finish BEIS alone. Everyone—school heads, teachers, head teachers, master teachers, registrars, administrative officers and administrative assistants, must collaborate to make sure the data are complete and accurate." – Participants C and G "May mga data na talagang manggagaling sa mga teachers, kaya very thankful kami kung ibibigay nila ito kaagad ng kompleto para makahabol kami sa deadline". – Participants E. Strong informal networks emerged among colleagues, where more experienced or technically adept personnel assisted others. Teamwork was crucial for navigating technical difficulties and understanding system requirements. "The tasks become easier with the help of school registrar and teachers, who provide accurate and updated data and school ICT personnel who assist with technical issues". – Participant B. "Thanks also to the Division Planning Officer for guiding us and answering our queries especially to several data questions which are quite confusing" – Participant D. Participants N shared that they often developed creative, although unofficial, workarounds to manage system limitations, such as maintaining parallel manual records or using personal devices and personal internet connections to complete tasks.

Collaboration and communication are essential components in relation to the challenges of the Basic Education Information System data management. Notwithstanding these challenges, school heads and the senior high school non-teaching personnel often show incredible adaptability and resilience, employing collaboration and communication to maintain the integrity of data and timely submission. Participants strongly attest the data handing over is a shared responsibility that transcends the teachers, the head teachers and all the other school personnel, coordinating the ICT, as well as, of course, the head of the school. In the words of a participant, "We can't finish BEIS alone. Everyone must collaborate to make sure the data are complete and accurate." This is consistent with the literature and data that professional collaborations train and provide the atmosphere for friendships, trust, and shared responsibilities (Tournier et al., 2025). The phenomenon of shared responsibility also validates and improves the quality of community data through verification and error-checking. Participants reflected on the reliance and guidance of external support networks, including the Division Planning Officer, on fully functioning internal communication for the resolution of data-related issues.

When there are systems-level constraints and technical challenges, informal networks become critical mechanisms for support and troubleshooting. Individuals who have been in the workforce longer or who are particularly technically savvy often help their co-workers, and here we see peer-to-peer learning as well as support structures beginning to evolve organically. Simply performing data, or doing data, fosters cooperation and collaboration, which leads to organizational communication and meetings (Schiefner-Rohs & Krein, 2021). Not only these are important, but they are also best practices of school heads and senior high school non-teaching personnel to be able to sustain a complex data system such as BEIS. They create a culture of accountability, and provide support processes for submitting data, solving problems informally and formally, and relieve school staff from the administrative burdens of data submission.

Theme 4: Need for Capacity-Building and Technical Support

A pervasive theme was the perceived inadequacy of training and ongoing technical support for BEIS users. Barriers to efficient BEIS data management included outdated computers and laptop, slow and unreliable internet connections, and a lack of formal training in BEIS updates for personnel. Access to timely and effective technical support was reported as a significant challenge. The absence of dedicated on-site support staff meant that technical problems lingered, further impacting efficiency and morale. These problems often led to delayed

submissions, repeated work, and a sense of helplessness. Personnel also frequently resorted to learning through "trial-and-error" or relying on more tech-savvy colleagues, creating an informal, often inconsistent, support network. "We learned most of it from each other, not from the official training," – Participant J. He also mentioned "Sana maisama kaming mga personnel sa BEIS training para mas maunawaan namin ang mga data na ilagay lalo na at marami ang mga confusing data". Most participant also suggested to have a re-echo from those who attended the division office BEIS updates on their respective school districts where all BEIS users/encoders and verifiers are present. They cited "Sana magkaroon ng division office or district re-echo para ma relay sa amin ang mga updates". Training would also help us avoid mistakes." – Participant A. Participant F hope that the central office will release a comprehensive BEIS manual which contains guidelines, process flow and explanatory notes to clarify some there are some confusing parts in the BEIS form.

The Basic Education Information System holds a wealth of educational data but its systematic management is often impaired by insufficient training and an overall absence of continuing technical support. This gap often leads to a cycle of inefficiency, and reliance on informal, sometimes inconsistent, support mechanisms among school head and senior high school non-teaching personnel. To emphasize the urgency of the situation, employees are often required to go through a learning process of trial-and-error or are forced to rely on technologically proficient peers, which indicates a lack of formal support systems. As a learning method BEIS employees 'trial-and-error' an unstructured learning process which creates inconsistencies as well as errors within the data they are required to process. In the absence of formal training, personnel become confused by the complexity of data requirements. As a result, delay of data submission is common, as is the repetitious efforts of submitting the same data. Santos et al., 2025 introduces that effective and communicated training and educational programs are also important to foster collaboration and meaningful contributions of all participants. Lack of timely, dedicated, and useful technical support is likely a major barrier to effective data management Ealy et al. 2024. Unresolved technical issues such as poor hardware like slow computers and poor-quality internet can undermine productivity and wreak havoc on employee morale. School heads and ICT coordinators are seen as e-leaders, and their obligation to provide technical support to the senior high school non-teaching staff in data collection and analysis is a given, but the peripheral system is consistently deficient.

The feedback from participants stating "division office or district re-echo" as a way of providing updates and answering queries, is a very strong statement of the need for more availability and more centralized support. In addition, the statements from participants calling for a comprehensive BEIS manual which provides guidelines and clarifications further indicates the need for standardized resources that can help make the system easier to understand.

Overcoming these challenges will involve significant investment in formal capacity-building programs, technology infrastructure, and sustained, consistent access to technical assistance. This includes clear and comprehensive documentation, as well as formal networks for ongoing learning and solution-finding that go beyond the informal, frequently inconsistent networks that exist now (Albers et al., 2020; Ealy et al., 2024).

Theme 5: Positive Perceptions about the Basic Education Information System

Despite there were several challenges, most of the participants who took part in the study understood how important BEIS is for school management and making decisions. They agreed that having accurate and up-to-date data makes it easier to plan and optimize resource allocation. "Nakakatulong ito sa mga implementation ng mga school programs namin". With reliable data, school leaders can better advocate for their school's needs, track progress toward goals, and ensure that interventions are evidence-based, ultimately leading to more effective school management and improved student outcomes" - Participant C and E

According to participant K and M, BEIS helps them to see the bigger picture of their school. Even if completing the data was very challenging, they find it very useful for school planning and reporting. Participant E, I and G believes that BEIS enhances transparency because the division and central office can see their school data. Because of this, they became more accountable for accurate reporting, and it also helps in better monitoring of their school's performance.

The Basic Education Information System provides support to school management and school-related decision-making in the Philippine educational system. While the challenges are recognized, a number of participants consider BEIS to be a useful component in promoting educational governance Lopez & Lorejo, 2023. In the words of Respondents C and E, "BEIS significantly aids in the implementation of school programs, enabling leaders to advocate for their schools' needs, monitor progress, and ensure that interventions are evidence-based." This, in turn, results in better decision-making and better student performance.

Participants K and M reiterated how BEIS offers a "bigger picture" of their school. They found the system to be a much-needed tool for both school planning and reporting. It agrees with results that management information system have a positive influence on the school administration with the findings on easy access to information, process enhancement, and resources optimization that helps in saving time and in report quality (Shah, 2014). In addition, participants E, I and G pointed out BEIS for improving transparency. Because division and central offices can see the school data, this provides more accountability in reporting and greater ease in monitoring schools' performance. This is to ensure that schools are held to the accountability standards

of their performance indicators and through more evidence-based practice foster a climate of ongoing improvement (Singh & Kaur, 2024). In the Philippines, the Department of Education used the Transparency Board to promote clear and accountable school governance, which requires publication of financial reports in a clear and accessible manner (Gaspar et al., 2022). The positivity reflected a solid basis for the continued use of BEIS, implicitly indicating its role in enabling more efficient, transparent, and accountable educational environments is appreciated at the school level. Which not only reflects that despite initial challenges, the long-term potential of BEIS for systematization and enhancement of institutional functionalities is relatively well understood (Zulueta et al., 2021).

V. CONCLUSION

The Basic Education Information System is recognized for its strategic importance in educational management, but it easily meets with significant operational problems. BEIS was intended to improve efficiency, yet it has resulted in a heavy load of paperwork for school staff, especially the non-teaching personnel in Senior High Schools. In deep data entry, verifying, and reporting, along with manual steps and tight schedules, BEIS changes from an instrument for data-driven insights into proper execution of school management tasks to fulfill the purpose of using constructive data analysis in supporting schools altogether. While technical system failure issues, upload failures, and data discrepancies lead to issues of integrity and a frustrating need to re-encode, the extensive manual duplication of data at the school level exceeds any other single factor in creating a taxing atmosphere for BEIS data capture.

Secondary school heads and non-teaching staff work without formal support, training, and resources, and as a result, they have to engage in informal social frameworks to navigate BEIS updates and processes, which means they often engage in 'learning by doing'. Losing formal training, timely technical assistance, modern equipment, and stable Internet connections all result in a loss of efficiency and motivation. Staff feel that it is vital to have a comprehensive BEIS manual and fully updated support structure in order to eliminate duplicate work and achieve higher degrees of autonomy.

Despite these difficulties, all participants continued to see the intrinsic value of BEIS for administration of schools, carrying out programs and making decisions based on information, pointing out its holistic approach to planning, reporting, as well as improving openness in government through transparency and accountability. This positive evaluation will be as policymakers say only sustained so long as its support or operation problems are solved.

VI. RECOMMENDATION

To bridge the gap between the perceived strategic value of BEIS and its operational challenges, the following recommendations are proposed:

1. Create a Data-Driven Culture by improving efficiency in data entry and transform compliance data to actionable insights. Introduce more technology solutions in order to streamline BEIS functions so that manual entry and verification steps are streamlined and repetitive tasks are automated so to reduce administrative burdens.
2. Transforming Compliance Data to Actionable Insights: Give BEIS as an initiated perceived as an administrative burden and transform it to a value perceived as a purpose of school improvement. Time during meetings should be reserved to iterative data insights as well as frequent analysis of data during meetings.
3. Optimize workload and foster a data driven culture. Change the perception of data as a compliance burden to one as a valuable resource for data-informed decisions, allocating school level time for data analysis and findings review. Data should be protected for the purpose of working with and the findings should be an important agenda on school meeting.
4. Assign a BEIS school team responsible for BEIS data management in schools and encourage formal cooperation and joint accountability for all personnel involved. Provide all BEIS users continuous, role-specific, hands-on training involving system functionality, updates, and data outputs. Support every BEIS user with capacity building and BEIS data and system updates.
5. Regularly communicate the benefits of BEIS so that the value of the data and the engagement of the data users is reinforced. Involve users of BEIS in providing feedback and possible enhancement to the system, so that the system improves in ways that will meet users' needs in the most beneficial ways.

VII. ACKNOWLEDGEMENTS

The researcher would like to express her heartfelt gratitude to the Almighty God for his love, guidance and wisdom which has guided her in the completion of this study.

She would like to express her appreciation to Dr. Elizabeth N. Farin, her professor in the Graduate School for the expertise she extended in the preparation and writing of the research in a scholarly manner.

She is indeed grateful to Dr. Ronald Ryan L. Sion, Chief Education Supervisor, Dr. Bryan Jester S. Balmeo, Education Program Supervisor and Dr. Jody Al P. Sahagun, Senior Education Program Specialist in

Planning and Research, Ma'am Genna S. Manglicmot, Planning Officer III for their insights, suggestions and recommendations which greatly improved the contents of this research study.

She is profoundly thankful to DepEd - Schools Division of Zambales, for allowing her to conduct this study and providing her assistance during the administration of the research instrument. To the Non-Teaching workforce, for their valuable contribution as participants.

Finally, her profound gratitude to her family and friends for their unfailing love and support which made this work a success.

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