School-Based Digital Data Management (SBDM): A Proposed Digital Data Management Practice for Elementary Teachers

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Abstract

Aim: This action research analyzed the [1] teachers' practices in digital data management, [2] the significant difference of the teachers' practices to their demographics, [3] acceptability and usability level, and [4] proposed a digital data management policy and procedural manual.

Methodology: This research used a quantitative survey design spec utilizing a researcher-made questionnaire subjected to pilot testing (4 teachers from different schools) for face validity and validated by experts in the related field for content validity. Further, the instrument was distributed to the twenty-nine teachers (n=29) of Mayao Crossing Elementary School. The data were analyzed using the Kruskal Wallis H test at a .05 level of significance due to the assumption that the data are not normal because of the unequal gender distribution among the respondents.

Results: Data reveals the respondents' model practice in data management regarding storing. On the other hand, archiving and retrieving did not get much attention regarding teachers' practices in data management. Likewise, data reveals no significant difference in teachers' data management practices regarding their demographics due to the teachers' adaptability and flexibility in their professional careers. Also, a policy recommendation and proposed manual are created to determine that manual is acceptable and useable for teachers.

Conclusion: Though the educational system is becoming more digital, teachers' digital data management practices should be enhanced in storing, archiving, and retrieving for teachers to become effective school data managers. It is evident that over the digitalization of the system, teachers have tended to save files unorganizable, resulting in problems such as data loss, redundancy, and invalidity. Additionally, schools need to establish school-wide localized policies and procedures for effective digital data management, enabling them to have more valid and reliable data for educational delivery and enhancement. Through this, all teachers will become effective data managers.

Keywords: *archiving, data management, retrieval, school-based data management, storing.*

INTRODUCTION

Schools are now embracing a data-informed approach in this tech era. More importantly, schools and teachers handle and receive comprehensive digital data such as test results, learners' information, and other school-related data regularly happening in this enormous bureaucratic department in the Philippines. It implies the importance of a paperless approach, from printed to digital documents. The only possible circumvention is the teachers' practices in data management. In particular, the DepEd Order No. 027, s. 2019 or the Guidelines on the Yearly Collection of Data/Information Requirements and Validation Process (p.1) states that "all public and private elementary schools are directed to register and update learners' profile and quick count enrollment in the Learner Information System (LIS) and update the school's profile and other data elements in the Basic Education Information System (BEIS). Notably, learners' data is constantly updated and well-managed. However, other essential school data such as forms, monthly reports, test results, and other teachers' records, whether digital or printed, do not have acceptable management practices, especially regarding digital or computer-generated data.

Whether digital or printed, responsible data management enables teachers to ensure that the data is appropriately stored, archived, and disposed of (if needed) safely and securely. Data management is essential for teachers and managers in monitoring how well they perform and how well the learners perform in a period. Unfortunately, teachers tend "just" to save their records, files, and sheets to their computers without proper data management knowledge. On the other hand, teachers also compile other data that cannot be saved digitally. As a result, data will not easily be retrieved and lost in the worst case. Hence, based on the researchers' initial interviews and observations of twenty-nine school teacher participants, even though they exercise data management practices, a unified, systematic school-based data management policy and procedural manual will significantly help. It intensely promotes data accessibility and easiness, data consistency and efficiency, data organization and management, and school practices in data management.

Government officials have introduced mitigating methods such as remote learning to manage and cope with the situation considering the COVID-19 pandemic and unprecedented school closures worldwide. With the use of different information communication methods, several organizations worldwide collaborated to develop mechanisms for the delivery of remote education. Teachers are increasingly interested in the commonly used digital tools, such as computers and smartphones. Still, they are less adept at using and navigating them, making it challenging to keep up with this digital era (Vidal, 2022). According to Torato (2022), this prepared the way for the new typical use of online distance learning (ODL) and remote learning for instruction delivery. ODL has introduced new ways for schools to offer instruction and learning. As a result, during the past two years, there has been an evident exponential growth in the usage of digital technology in educational institutions (Alexander Richter, 2020, De et al., 2020, Doyle and Conboy, 2020, Fletcher and Griffiths, 2020, Iivari et al., 2020, Konig et al., 2020, Maung Kyaw Sein, 2020, Olofsson et al., 2020, Papadopoulos et al., 2020, Robert M. Davison, 2020) resulting to teachers more adaptable to digital space.

Furthermore, there are different considerations and issues teachers need to know regarding data management, such as the type of data, media and storage capacity, responsibilities and privileges, and procedures. The school administration's role is to disseminate and implement policies to strengthen the teachers' capabilities and knowledge in data management. For instance, the DepEd Order No. 83, s. 2012 also known as School Based Management (SBM), guides schools in improving education by devolving considerable decision-making authority from the central office to field offices and local schools. It allows them to better respond to their unique educational requirements; this is one of the data-driven practices of the Department of Education.

Consequently, schools, specifically the teachers, have a problem providing the needed mode of verifications (MOVs) for each SBM criteria. Further, School-Based Management positively impacts school effectiveness, quality, and improvement. On the other hand, these proposed school-based data management policies and a procedural manual can strengthen the teachers' and schools' practices in data management, one of the primary considerations of School-Based Management (SBM).

Moreover, created and implemented school-based policies should be reminded and posted (if necessary) for teachers and other employees to internalize their actions in their tasks. It is essential to communicate such procedures for the organization members to be aware and informed about the school mechanisms. With a school-based data management policy and procedural manual, the school can avoid redundancies and inconsistencies in reports and protect the organization from illegal actions or fraud.

METHODS

a. Participants and/or Other Sources of Data and Information

The research participants were then twenty-nine (n=29) purposively selected teachers of the study locale. All participants handled elementary grade learners with different ancillary services rendered to the school. Seven percent (7%) or two out of twenty-nine (29) respondents were novice teachers who had just started rendering services in the department for half a year. On the other hand, the remaining ninety-three percent (93%) or twenty-seven teachers were all proficient teachers in terms of the years rendered in the department.

b. Data Gathering Method

Various instruments

The researchers utilized a self-crafted instrument based on the insights from the study's literature review and validated by an IT Professional. It was subjected to pilot testing (15% of 30 teachers), resulting in a .76 Cronbach alpha result, which is reliable. It contains different statements that answered the study's objectives: demographic profile and teachers' practices in storing, archiving, and retrieving data management. Also, the questionnaire states the study's purposes and its confidentiality.

Procedures for data collection

First, the researchers ensured that the research was adequately communicated to the proper authorities, such as the schools division research coordinator, supervisors, and other offices (if necessary). Equally important, all the respondents were formally notified through informed consent following the divisions' processes for conducting a study. Consequently, respondents can participate and withdraw in the study of their free will. Second, the survey was implemented using online platforms assisted by google forms, which enabled the researchers to quickly tabulate the results and import them to statistical software for profound and reliable data analysis. Furthermore, all data collected were treated with high confidentiality, aligned with the Data Privacy Act of 2012. Indeed, all ethical aspects of the research were of utmost priority.

c. Data Analysis Plan

In interpreting the data, the researchers used statistical tools such as percentages, weighted mean, and general weighted mean. Further, this research used a quantitative survey design spec utilizing a researcher-made questionnaire subjected to pilot testing (4 teachers from a different school) for face validity and validated by experts in the related field for content validity. The Kruskal Wallis H test was used to assess the significance of each variable's difference at a .05 level due to the assumption that the data are not normal because of the unequal gender distribution among the

respondents. Further, the researchers used a weighted mean in determining the acceptability and usability level of the proposed school-based digital data management manual.

RESULTS AND DISCUSSIONS

Table 1.
Demographic Profile

Age	Frequency	Percent
21-30	7	24.1
31-40	8	27.6
41-50	12	41.4
51-60	2	6.9
Total	29	100.0
Education	**Frequency**	**Percent**
Baccalaureate	7	24.1
Masters' Unit/CARMA	20	69.0
Masters' Degree	1	3.4
Doctoral Degree	1	3.4
Total	29	100.0
Experience	**Frequency**	**Percent**
0-10	15	51.7
11-20	11	37.9
21-30	3	10.3
Total	29	100.0

Table 1 presents the demographic profile of the respondents in terms of their age, educational attainment, and years of service in public schools.

Most respondents are teachers with master's units and serving 0-10 years of experience in public schools. Through this, it can be seen that the respondents are "Proficient Teachers." According to the Philippine Professional Standards for Teachers (PPST), they are professionally independent teachers, provide focused teaching programs, display skills in planning, implementing, and managing learning programs, actively engage in collaborative learning, and are reflective practitioners (Department of Education Teacher Education Council, 2017). Hence, due to this continuously modernizing society, millennials' use of technology fits the concept of this study.

Table 2
Practices Employed in School-Based Data Management in Terms of Storing

STATEMENT	4 (AP)	3 (SP)	2 (RP)	1 (NP)	AWM	QD
A3. I use personalized file and folder naming in different file/folder formats (ex. png, pdf, docx, xlsx, CSV, XML, PSD, jpeg).	17	10	2	0	**3.52**	**AP**
A4. I prefer using personal file naming conventions in organizing my data.	16	12	1	0	**3.52**	**AP**
A10. I prefer using my desktop/laptop flash drives and external drives as my data storage device.	14	13	2	0	**3.41**	**AP**
A1. I properly manage to store digital data.	10	18	1	0	**3.31**	**AP**
A2. I choose reliable electronic data storage to ensure that my data are secure (e.g., clouds, g-drive social media, etc.).	11	16	2	0	**3.31**	**AP**
A5. I specify what data to be preserved according to the size of the data.	6	19	4	0	**3.07**	**SP**
A6. I assure that data are protected against misuse and manipulation.	6	18	5	0	**3.03**	**SP**

	4	3	2	1		
A7. I assure that my data is protected from any loss by using my data recovery plan.	6	16	6	1	**2.93**	**SP**
A8. I assure that there is no redundant data saved in my storage.	2	22	5	0	**2.90**	**SP**
A9. I use the proper data retention method.	4	17	8	0	**2.86**	**SP**
AVERAGE WEIGHTED MEAN					**3.19**	**AP**

Legend:
4.00 - 3.00 (Always Practiced)
2.99 - 2.00 (Sometime Practiced)
1.99 -1.00 (Rarely Practiced)
1.00 - 0.99 (Never Practiced)

Table 2 presents the practices of twenty-nine (*n*=29) teachers in school-based data management in terms of storage. It depicts that the total average weighted mean is 3.19, meaning that the storing activities were always practiced. Hence, the respondents always practiced using personalized file and folder naming in different file/folder formats (ex. png, pdf, docx, xlsx, CSV, XML, PSD, jpeg) and using personalize file naming conventions in organizing data (3.52). The data denotes that the respondents have practiced securing their data through personalizing their files.

On the other hand, the least rated among their practices is assuring that there is no redundant data saved in the storage (2.90) which should be given attention for the teachers to have factual data and avoid repetition of data storage to minimize space storage.

Significantly, file names are an essential part of organizing data files. Teachers can tilt electronic and hard copies of data logically through the naming convention, ensuring the data can be easily located, identified, and retrieved from the digital storage. Through this, users can easily distinguish similar records to avoid data duplication and waste of data storage. Further, personalized file naming also contains file identifiability which can be easily achieved by proper practices and concepts in school digital data management**.**

Equally important, using digital data is one of the components of successful school digital data management. Nowadays, teachers are primarily using a computer that contains digital storage. Education is continuously transforming the traditional way of teaching (including data management) into the modern way (digitalization). Digitally saved data is more efficient, protected, secure, has better visibility, is more accessible, and scales the data's needs. Regarding storage, gigantic companies provide "house-serves," and hiring services provider to manage their data effectively. In a school-based manner, teachers need to familiarize themselves with the proper data management procedures to effectively execute the data management practices in the proposed data management manual.

Table 3.
Practices Employed in School-Based Data Management in Terms of Archiving

STATEMENT	4 (AP)	3 (SP)	2 (RP)	1 (NP)	AWM	QD
B2. I prioritize the security and privacy of my files.	10	15	4	0	**3.21**	**SP**
B1. I properly manage to archive digital data.	6	19	4	0	**3.07**	**SP**
B3. I record, track, and monitor my files.	7	18	3	1	**3.07**	**SP**
B4. I use my data management strategy.	6	18	5	0	**3.03**	**SP**
B10. I use back-ups plans in case of my data cannot be found.	6	16	6	1	**2.93**	**SP**
B5. I review my data files weekly/monthly/quarterly/annual.	5	15	9	0	**2.86**	**SP**
B8. I digitize printed documents.	4	16	7	2	**2.76**	**SP**
B7. I ensure that my files are architecturally correct and efficient.	4	17	6	2	**2.71**	**SP**
B9. I follow the retention and disposal procedure for my data files.	2	19	5	3	**2.69**	**SP**
B6. I dispose of my files at the end of their life cycle.	1	17	7	4	**2.52**	**SP**
AVERAGE WEIGHTED MEAN					**2.89**	**SP**

Legend:
4.00 - 3.00 (Always Practiced)
2.99 - 2.00 (Sometime Practiced)
1.99 -1.00 (Rarely Practiced)
1.00 - 0.99 (Never Practiced)

Table 3 indicates the practices of twenty-nine (*n*=29) teachers in school-based data management in terms of archiving. It shows that the total average weighted mean is 2.89, meaning that the archiving activities were sometimes practiced. Hence, the respondents sometimes practiced prioritizing the security and privacy of files (3.21). The data denotes that the respondents must practice prioritizing their files' security and privacy to avoid data loss and plagiarism.

On the other hand, the least rated to their practice is disposing of their file at the end of its life cycle (2.52), which should avoid outdated data and maximize their devices' storage capacity.

Indeed, data is a valuable asset in today's digital economy, and gathering and sharing it can be a huge business. However, for a company (particularly in education) to securely and productively exploit the data it collects, it must have protections to guarantee that data is kept secure and that customers are not subjected to unwelcome monitoring (Zhao, 2020). Talking about data security in an enormous bureaucracy in the Philippines (Luz, 2009), the Department of Education's safety and privacy of learners' data is one of the priority risks. Therefore, DepEd continuously improves its services and mandates to address such issues. For instance, DepEd states, "Following the Department of Education's (DepEd) mandate to protect and promote the right to and access to quality primary education, DepEd collects various data and information, including personal information, from multiple subjects, using different systems.

Besides, data archiving is a vitally essential data management practice that prevents data loss and increases security. It is worth noting that stored; static data may be turned active again, as the prospect of not being able to re-access data might determine from preserving their records. If information is needed quickly, it should still be available. When choosing such services before using any software, there are many factors to consider.

Table 4.
Practices Employed in School-Based Data Management in Terms of Retrieval

STATEMENT	4 (AP)	3 (SP)	2 (RP)	1 (NP)	AWM	QD
C8. I use file search to locate my file quickly.	10	18	1	0	3.28	AP
C6. I use a personalized file naming format so that I can easily retrieve my files.	8	18	2	1	3.14	SP
C7. I use personalizing data file naming conventions to retrieve my files quickly.	8	18	1	2	3.10	SP
C3. I use a data backup plan to avoid data loss.	7	16	5	1	3.00	SP
C1. I properly manage the retrieval of digital data.	4	20	4	1	2.93	SP
C2. I use a personal data development plan.	4	17	7	1	2.83	SP
C5. I separate storage from retrieval device (ex. backup drives)	1	21	6	1	2.76	SP
C10. I ask IT support if some of my files are lost.	2	19	6	2	2.72	SP
C4. I use a disaster recovery plan (when an unexpected disaster damages the storage).	19	9	1	0	2.62	SP
C9. I use data retrieval software.	3	17	3	6	2.59	SP
TOTAL AVERAGE WEIGHTED MEAN					2.90	SP

Legend:
4.00 - 3.00 (Always Practiced)
2.99 - 2.00 (Sometime Practiced)
1.99 -1.00 (Rarely Practiced)
1.00 - 0.99 (Never Practiced)

Table 4 displays the teacher's practices in school-based data management regarding retrieving. It shows that the total average weighted mean is 2.90, meaning retrieving activities were sometimes practiced. Hence, the respondents sometimes searched quickly to locate files (3.28). The data denotes that the respondents do not have enough knowledge on how to explore their files easily. On the other hand, the least rated to their practice is using retrieval software (2.59) which should be given attention to avoid wastage of time in searching their files.

As part of proper file management, file search is notably significant to lessen the effort of locating and browsing through folders. However, as files in folders grow, searching and locating them becomes tedious. As stated in the previous statements, teachers handle numerous amounts of data, especially learners'. The result of the pre-assessment conducted as part of the study, the baseline data reveals that teachers are having difficulties maintaining and locating data saved in the digital spaces. File searching enables teachers to find data quickly. It is efficient and fast compared to locating the file manually - file by file and folder by folder.

Storing, archiving, and retrieving are connected and come from good data management practices. Therefore, it should come hand-to-hand for teachers to be good school data managers. Although there are many methods to be used in data management, there should be intact instruction and practice for the teacher to use in their personal data management for the school-based data management. File personalization also (file naming convention) impacts these practices. With just simple personalization of file names, school data management can enhance their practices and discover more efficient and reliable methods.

To sum up, storing, archiving, and retrieving are the fundamentals of school-based data management. Stedman & Vaughan (2021) reminded effective data management is a critical component of implementing digital data systems that operate the school and offer analytical data to enable the administration, business managers, and other

end-users to make operational and strategic decisions. Data is increasingly being considered a corporate asset that can be utilized to make better school decisions, enhance delivery efforts, streamline operations, and save expenses by improving school performance. However, a lack of proper data management may leave organizations specifically with incompatible data silos, inconsistent data sets, and data quality concerns – or, worse, leading to incorrect conclusions. The most popular platform for storing business data is databases, which include a collection of organized data that can be accessed, updated, and controlled. The school data managers' database administration is essential for data management. After the databases have been set up, performance monitoring and adjusting must be carried out to guarantee that users' requests to obtain information from the stored data are answered promptly.

Table 5.
Teachers' Practices in Data Management as Grouped into their Demographics.

The difference in the Teachers' Practices in Data Management as Grouped into Age					
Stages	**Sum of Squares**	**Df**	**Mean Square**	**f-value**	**Sig.**
Storing					
Between Groups	15.176	3	0.5058	1.4986	0.3456
Within Groups	89.584	25	0.35384		
Total	104.76	28			
Archiving					
Between Groups	11.346	3	0.3782	0.7253	0.5887
Within Groups	132.929	25	0.5318		
Total	144.275	28			
Retrieving					
Between Groups	20.082	3	0.6694	1.4379	0.418
Within Groups	120.816	25	0.4832		
Total	140.898	28			
The difference in the Teachers' Practices in Data Management as Grouped into Educational Attainment					
Stages	**Sum of Squares**	**Df**	**Mean Square**	**F-value**	**Sig**
Storing					
Between Groups	12.43	3	0.4145	1.1216	0.4614
Within Groups	92.329	25	0.3691		
Total	104.759	28			
Archiving					
Between Groups	10.217	3	0.3406	0.6595	0.6338
Within Groups	134.059	25	0.5361		
Total	144.276	28			
Retrieving					
Between Groups	1.0731	3	0.3577	0.6873	0.5913
Within Groups	130.164	25	0.5206		
Total	131.2371	28			
The difference in the Teachers' Practices in Data Management as Grouped into Years of Experience in Public Schools					
Competency	**Sum of Squares**	**Df**	**Mean Square**	**F-value**	**Sig**
Storing					
Between Groups	5.075	2	0.2583	0.6582	0.5912
Within Groups	90.685	26	0.3836		
Total	104.758	28			
Archiving					
Between Groups	10.748	2	0.5373	1.0939	0.492
Within Groups	130.528	26	0.5135		
Total	141.276	28			
Retrieving					
Between Groups	10.22	2	0.5107	1.1128	0.5656
Within Groups	130.677	26	0.5028		
Total	140.897	28			

*0.05 level of significance (2-tailed)

Table 4 summarizes the values for testing a significant difference in the teacher's practices when grouped according to demographics. First, the computed α values in the three stages indicate no significant difference in the competencies in data management of teachers of all ages. Thus, the null hypothesis stating "there is no significant difference in the teachers' practices when the teachers are grouped according to ages" is accepted. This further means that teachers of all ages have similar practices in the three stages.

Teachers must deal with many changes in their jobs. Teachers must adapt to students' diverse and changing needs, successfully connect with new colleagues and parents/careers, proactively manage timetables, alter daily activities, and incorporate new professional development or curriculum into their teaching methods (Collie & Martin, 2016). It is critical for healthy and productive workplace functioning to adapt effectively to these changes. Individuals' ability to modify their ideas, behaviors, and emotions in response to changing, unfamiliar, or unknown conditions is referred to as adaptability (Martin, Nejad, Colmar, & Liem, 2012). Even though the research has long suggested that instructors' flexibility is a critical element of effective instruction, more study on this issue is crucial, given the continuously changing demands that teachers confront in their everyday job.

Second, the computed α in all categories indicates no significant difference in the competency of the teachers as classified to academic achievement. Thus, the null hypothesis is accepted, which further means that the teachers with different educational attainment have similar practices in data management.

Lastly, the computed α in all categories indicates no significant difference in the competency of the teachers as classified to years of experience in public school. Thus, the null hypothesis is accepted, which further means that the teachers with different years in public school have similar practices in data management.

Generally, it is essential to have a good teacher. It is the most significant school-related element impacting student success and teacher development. Knowledge and enhancing educational processes require understanding teachers' ideas, behaviors, and attitudes. They affect students' learning environments and influence student motivation and success. They are strongly related to teachers' techniques for coping with problems in their everyday professional lives and overall well-being. They are also expected to moderate the impacts of job-related policies on student learning, such as changes in curriculum for teachers' initial education or professional development. When combined with other quality dimensions like context, teaching and learning environment, and learner characteristics, learning data can show the elements that have the most impact on learning outcomes. Data may identify underserved and underperforming populations by exposing discrepancies in student achievement and service supply. Inequities can be addressed once recognized (IIEP, 2021). Therefore, teachers' data management practices are the best strategies to improve their teaching delivery and professional development.

Talking about age, some literary suggestions that age as demographic means "downing tools" and "slowing down" (Cox, n.d). Technically, teachers' demographics should be considered in conducting different reforms in education to make it more concrete. On the contrary, teachers are all flexible – disregarding their demographics. Flexibility and adaptability are 21st-century skills (Manire, 2020) that teachers and school leaders possess. These two traits are also mutually exclusive. Flexibility means plans can be altered at any time, with or without notice. Receiving constructive feedback (both good and bad) from advisers is critical for flexibility since it forces you to alter your routine. Being adaptable involves incorporating this information into lessons. Also, based on specific events in the classroom, on-the-spot modifications may be required frequently without prior notice. The capacity to adapt to change is referred to as adaptability. Generally, it refers to the teachers' ability to adjust to new jobs, tasks, materials, and timetables.

Proposed School-based Data Management Policy and Procedural Manual

Policies and procedures, in general, are intended to be used as training materials. Furthermore, one of the primary goals of processes is to maintain uniformity. Systems are created to aid in the reduction of variance within a circle. Clearly defining the objective of your method can assist in achieving employee collaboration or compliance and establish a feeling of direction and urgency in an organization. (*See Appendixes for the RESEARCH RESULTS UTILIZATION REPORT (POLICY RECOMMENDATION) and the SBDM Procedural Manual*).

Table 6.
Acceptability and Usability Level of the Proposed School-Based Data Management Policy and Procedural Manual

Statement	AWM	QD
7. I would imagine that most people would learn to use this manual very quickly.	**3.45**	**SA**
6. I expect that there was no inconsistency in this manual.	**3.41**	**SA**
3. I see the manual was easy to utilize.	**3.41**	**SA**
5. I found the various function of this manual is well integrated.	**3.38**	**SA**
1. I would like to use this manual frequently.	**3.35**	**SA**
4. I would need the support of a technical person to be able to use this manual.	**3.35**	**SA**

8. I found the manual not tricky/ awkward to use.	**3.35**	**SA**
9. I felt very confident using the manual.	**3.35**	**SA**
2. I found the manual is not excessively complicated.	**3.31**	**SA**
10. I needed to learn many things before I could get going with this manual.	**3.28**	**SA**
TOTAL AVERAGE WEIGHTED MEAN	**3.36**	**SA**

Legend:
4.00 - 3.00 (Strongly Agree)
2.99 - 2.00 (Agree)
1.99 -1.00 (Disagree)
1.00 - 0.99 (Strongly Disagree)

Table 6 exhibits the acceptability and usability level of the proposed school-based data management procedural manual. It shows that the total average weighted mean is 3.36, which means that respondents strongly agree on the usability and acceptability of the proposed school-based data management procedural manual in enhancing their skills in data management.

Every organization should have a document outlining precisely how things should be done. For instance, it is valid for an organization to ensure that multiple divisions operate well together. It is also true for a small business to ensure that things function smoothly when the owner is away from the office. Moreover, this is one of an organization's best practices in school based-data management. Teachers must be aware of the organizations' expectations. To manage day-to-day organizational procedures, school administration should require a handbook referring to the procedural standards. By documenting these standards, organizations can express what is vital for your organization's quality, development, and customer happiness.

Furthermore, policies and procedural manuals help an organization avoid inconsistencies through clear directions from the management on handling specific work-related situations and procedures. Therefore, it should be clearly stated and defined policies and procedures. It can also protect the organization from possible legal actions and fraud. Furthermore, it is notably vital that it should be well-crafted and reviewed by different experts for potential enhancements. Besides, these documents can serve as a training tool for the teachers to improve their practices to best fit the organizational performance.

CONCLUSION

Based on the study's results, the respondents' practices focus on securing data through personalized file naming conventions which can bring different challenges in digital data management such as unorganized files, data loss, invalidity, and unreliability. Further, invalid, and unreliable data can cause improper intervention, resulting in a more severe problem in schools. Also, teachers' demographics are not significantly affecting digital data management practices because of teacher adaptability to changes. In this instance, schools in this digital era need a concrete localized policy and procedures for effective digital data management. Thus, this study is limited only to the teachers of the locale. Other studies shall be conducted more broadly to evaluate further the teachers' digital data management practices and the acceptability and usability of the proposed school-based digital data management policy and procedural manual.

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