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UTILIZATION OF DIGITAL INFORMATION SYSTEM: BASIS FOR CAPACITY BUILDING OF TEACHERS LEARNERS' DATA MANAGEMENT

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ABSTRACT

This study sought to determine the level of implementation of digital information system as basis for capacity building of teachers' learner data management skills. This study made use of a descriptive survey research method. It is descriptive because the data are presented in quantitative descriptions on the level of implementation of e-information system relation to the records management skills of the school planning officers. This study was conducted in the public elementary schools of Matanao II district, Division of Davao Del Sur. The respondents assessed the implementation of digital information system as basis for capacity building for teacher's learner data management skills in the research locale. Universal sampling procedure was used in determining the respondents considering the small number of teacher-respondents in the research locale. This study revealed that the level of implementation of digital information system is High which means that the teachers oftentimes utilized digital information in keeping records which developed their learners data management skills.

KEYWORD: *Digital Information, Data Management*

INTRODUCTION

It is very important for management for control of records. It is an art of handling and maintaining office records from the time of creation to disposal. The records are systematically maintained to preserve for future use. Record management refers to the activities designed to control the life cycle of a record.

Benefits of Records Management include more effective management of your current records (both paper and electronic); a reduced / eliminated level of record-keeping redundancies; reduced costs for records storage equipment and supplies; and increased usable office space through the elimination of unnecessary file storage. In addition, Records Management provides institutional accountability and timely access to information.

Ultimately, Records Management ensures that institutional records of vital historical, fiscal, and legal value are identified and preserved, and that non-essential records are discarded in a timely manner according to established guidelines and identified legislation.

While many companies are familiar with the concept of records management for paper records, many are still not addressing the management of huge volumes of electronic documents. Business leaders need to understand the importance of managing all types of files – including both physical and electronic – to stay compliant. Additionally, they need to understand how implementing a comprehensive RIM program can help their organization reach long-term goals. Records management allows easy collection of statistics.

Much of business decision-making is based on trend analysis. Trend-analysis is developed and built based on finding patterns in information and data and making conclusions about the behavior of those patterns. The better the information management, the better trend-analysis and related business knowledge tends to be.

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Record management improves efficiency. Data is found faster, easier, and decision-making is improved by immediate analysis and information retrieval. Improved record-keeping reduces resource waste. Less paper and storage system space is used when proper protocols are followed.

On the other hand, the combination of hardware and software used to manage electronic information. It makes stored information from internal and external sources more accessible, and facilitates better decision making. The data is retained in a database. The system supports a firm's operations and processes business activities to accomplish company goals.

Electronic information system stores information from internal and external sources to facilitate better decision making. The data is collated in a database and the user can access the files to glean better information as a basis for decision. The system may include fiscal, social, economic, scientific or technical data geared to support a firm's operation. Even in the 21st century, a small business may be able to keep most of its records on paper. Given the growing amount of data hacked from major companies, paper might even seem more secure. There are genuine advantage to turning files into digital data, though. With sensible precautions, you can minimize the potential downsides.

In the division of Davao Del Sur particularly in Matanao II district, data management is slowly shifting paradigm from manual keeping to electronic safekeeping. Not only safekeeping of data is initially implemented but also submission of reports and other data are submitted on line. However, with this new technology, teachers felt uneasy especially those who are not technology savvy. With this foregoing problem, the researcher being a teacher in one of the schools in the district conceptualizes strategies in unveiling underlying problems. Hence, this research study.

This study sought to determined the level of implementation of e-information system and the level of records management skills of school planning officer. Specifically, it sought to determined the answers of the following sub problems:

1. What is the level of utilization of the digital information system of:
1.1 Data support system,
1.2 Data control system,
1.3 Data management system,
1.4 Data Collection and
1.5 Data Storage
2. What capacity building of teachers learners data management skills can be designed and proposed?

METHODOLOGY

Research Design

This study employed the non-experimental descriptive survey research design in investigating the research problem. It is descriptive because the data were presented in quantitative descriptions on the "Digital Information System: Basis for Capacity Building of Teachers Learners Data Management Skills". According to Good (2005), this method of research showed merely description of tasks presented the conditions regarding the nature of the group of persons or class of events that involved procedure of analysis, classification, and measurement. It involved varied information regarding the current or present condition (Deauna, 2005).

Respondents and Sampling

This study was conducted on selected elementary schools in the division of Davao Del Sur particularly in Matanao II district. The respondents of this study were the 136 teachers. A universal sampling procedure was used, considering the minimal number of respondents. The research respondents answered the research questionnaire, focusing on the utilization of the digital information system.

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Table 1. Distribution of Respondents

School	No. of Teacher-respondents
Donganpekong Elementary School	10
Glot Towak Elementary School	14
Kapoc Elementary School	7
La Suerte Elementary School	11
Langaan Elementary School	7
Manga Elementary School	16
Marciano Apiag Elementary School	7
MH del Pilar Elementary School	8
Saub Elementary School	7
Savoy Elementary School	14
Sitio Project Elementary School	7
Sulatorio Elementary School	8
Tamlangon Elementary School	6
TFS of Datalfitak	7
Tibongbong Elementary School	7
TOTAL	136

Research Instruments

This study will utilize the researcher-made questionnaire which items focus on the utilization of digital information system by the teachers in the research locale. The questionnaire will be pilot tested to a school that is not a respondent to this study using cron bach alpha to test its validity and reliability.

To determine the level of digital information skills of school heads, the following continuum will be used.

Interval	Level	Criteria
4.20 – 5.0	VERY HIGH	When the digital information system is utilized all the time in keeping school pertinent records
2.40 – 3.19	HIGH	When the digital information system is oftentimes times utilized all in keeping school pertinent records
1.60 – 2.39	MODERATE	When the digital information system is sometimes times utilized all in keeping school pertinent records
80 – 1.59	LOW	When the digital information system is rarely utilized all in keeping school pertinent records
0 - 79	VERY LOW	When the digital information system is never utilized in keeping school pertinent records

At the outset of data gathering procedure, the researcher will draft a letter seeking for permission that this research study be conducted were sent to the Dr. Nelson Lopez, CESO VI, the Schools Division Superintendent in the division of Davao del Sur and school principals in Matanao II district.

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While letters seeking permission were delivered to the DepED Schools Division Superintendent and principals concerned, the researcher constructed a questionnaire, and have it validated by the experts and have it pilot tested using cron bacj alpha.

After permission has been granted that this study be conducted in the research locale and after the research questionnaire has been thoroughly examined by the expert validators and pilot tested, the researchers will launch the questionnaire into the field and retrieve them from the respondents personally after few days.

Finally, the raw scores were submitted to the statistician for statistical computation after which the researcher subjected it to analysis and interpretation.

Data Analysis
The following statistical tools will be used in the analysis and interpretation the responses in this study.
Mean will used to determine the level of utilization of digital information system and the level of records management skills of teachers.

RESULTS AND DISCUSSION

This chapter displays the summary of the findings, conclusions and recommendations drawn out by the researcher after the analysis and interpretation of the findings had been made.

This study sought to determine the level of implementation of digital information system as basis for capacity building of teachers' learner data management skills.

This study made use of a descriptive survey research method. It is descriptive because the data are presented in quantitative descriptions on the level of implementation of e-information system relation to the records management skills of the school planning officers.

This study was conducted in the public elementary schools of Matanao II district, Division of Davao Del Sur. The respondents assessed the implementation of digital information system as basis for capacity building for teacher's learner data management skills in the research locale. Universal sampling procedure was used in determining the respondents considering the small number of teacher-respondents in the research locale.

This study revealed that the level of implementation of digital information system is High which means that the teachers oftentimes utilized digital information in keeping records which developed their learners data management skills.

Conclusions
Based on the collective findings on this study, the following conclusions are drawn:
The level of implementation of digital information system is High. This means that the teachers oftentimes utilized digital information system in keeping the records of the learners.

Recommendations
In the light of the findings drawn out by the researcher in this study, the following suggestions and recommendations are offered:
It is suggested that the Department of Education should have developed a policy intensifying the utilization of digital information system in school particularly in downloading, uploading information and submission of report to minimize travelling of school planning officers in the submission of reports, hence, travel expenses charged to MOOE will also be minimized.

The School Administrator should have provided strong internet connection in school so that uploading, downloading and submission of reports to higher office will be easily facilitated by the designate school planning officers.

For future researchers, it is strongly recommended that a relative study on the utilization of digital information system in relation to other components will be conducted.

REFERENCES

1. *Ahitud,R.,et.al. (2007). A PROPOSAL LAN-BASED AUTOMATED ENTRANCE EXAMINATION SYSTEM OF ST. DOMINIC SAVIO COLLEGE. https://pdfcoffee.com/research-revised-3-pdf-free.html*
2. *Akanbi, R. (1999). Excellent School Records Behaviour for Effective Management of Educational Systems. January1999. OI:10.5923/j.hrmr.199910501.02*
3. *Akangbou, D. (1985). Determinant Factors for Planning Students Records Retrieval in Nigerian Universities. Vikas publishing House, PVT Ltd Anseri Road, New Delhi, India pp 13*
4. *Alcaria, L. (2004). Enrollment System For SAD. https://www.scribd.com/document/369698988/Chapter-1-Enrollment-System-for-SAD*
5. *Bursary, T.(2018). A Review of Records Management in Organisations. January 2021. Open Access Library Journal 08(12):1-23. DOI:10.4236/oalib.1108107*
6. *Bryan, Robert W. (2006). The leveraging influence of strategic alignment on IT investment: An empirical examination. Volume 43, Issue 3, April 2006, Pages 308-321.https://doi.org/10.1016/j.im.2005.07.002*
7. *Cabang, D., et.al (2003). Development of Electronic Archive Book in Improving Learning Outcomes of Electronic Archive Management of Office Administration Education Students, Faculty of Economics, Unimed.*
8. *Cura, Van L. (2004). Usability of a Computer-assisted Interview System for the Unaided Self-entry of Patient Data in an Urban Rheumatology Clinic. Journal of the American Medical Informatics Association, Volume 11 Issue 4, July 2004, Pages 249–259*
9. *Deauna, M. (2005). The Information System Development Based on Knowledge Management in Higher Education Institution.http://ijhe.sciedupress.com International Journal of Higher Education Vol. 9, No. 3; 2005*
10. *Dioso, Elizabeth D.,EdD (2001). Vol. 11 No. 2 (2024): EPRA International Journal of Environmental Economics, Commerce and Educational Management (ECEM)*
11. *Djorka, M. and Conneen, F. (1998). Challenges of records management in higher education in Ghana: The case of University for Development Studies. International Journal of Educational Policy Research and Review Vol.4 (3), pp. 29-41. https://www.journalissues.org/IJEPRR/*
12. *Ella, S. (2012). Machine Learning and Big Data Processing: A Technological Perspective and Review . First Online: 26 January 20128 3971 Accesses13 Citations Part of the Advances in Intelligent Systems and Computing book series (AISC,volume 723)*
13. *Flores, Rodimiro R. (2002). Automation and Labor Markets in Developing Countries. Georgetown University ProQuest Dissertations Publishing, 2002. 29168280.*
14. *Forman, Paul (2007). The Primacy of Science in Modernity, of Technology in Postmodernity, and of Ideology in the History of Technology. An International Journal. Volume 23, 2007*
15. *Franks, Patriacia C. (2018). Records and Information Management, Second Edition. Item Number 978-0-8389-1716-9.Published 2018.Publisher ALA Neal-Schuma*
16. *Gatton, Thomas M. (2012). "Integration of Services Computing Curricula in Information Technology," 2012 IEEE Congress on Services - Part I, Honolulu,HI, USA, 2012, pp. 41-45, doi: 10.1109/SERVICES-1.2012.99.*
17. *Gessesse, Kebede (2000). Collection development and management in the twenty-first century with special reference to academic libraries. October 2000. Library Management 21(7):365-37 DOI:10.1108/01435120010372551*
18. *Good, T. (2006). Teacher Behavior and Student Achievement. New York: McMillian*
19. *Gurewich, M. (1999), ONLINE EXAMINATION SYSTEM USING PYTHON. International Journal of Engineering Science and Advanced Technology (IJESAT)*
20. *Holmes, Kerry P. (2006). An Introduction to Current Trends and Benefits of Mobile Wireless Technology Use in Higher Education. Volume14, Number 1, January 2006 ISSN 1065-6901 Publisher: Association for the Advancement of Computing in Education (AACE), Waynesville, NC USA*
21. *Igwoku, D. (2008). Management of University Records for Effective Adminitration of Universities in North Central Nigeria. Library and Information Science, Benue State University, Makurdi, Nigeria*
22. *Iwhiwhu, F. (2007). Management of Records in University Libraries in the South-South Zone of Nigeria. December 2007. Library Philosophy and Practice 2007*
23. *Kemoni, F. and Wamukoya D. (2019). Electronic records management research in ESARBICA: a bibliometric study. ISSN: 0956-5698. Article publication date: 28 June 2019. Issue publication date: 6 August 2019*
24. *Kroenke, David M.(2002). DATABASE PROCESSING FUNDAMENTALS, DESIGN,AND IMPLEMENTATION. Pearson Prentice Hall, five editions, 2002*

25. *Nwankwo, A. (2000). An Assessment of Record Management System in Establishment Division of Two Universities in Nigeria. . International Letters of Social and Humanistic Sciences, 13, 97-109. https://doi.org/10.18052/www.scipress.com/ILSHS.13.97*
26. *Lewis, Ethan (2002). Should the Personal Computer Be Considered a Technological Revolution? Evidence from U.S. Metropolitan Areas. https://www.journals.uchicago.edu/toc/jpe/2010/118/5*
27. *Long, S. (2001). An Assessment of Record Management System in Establishment Division of Two Universities In Nigeria.ISSN 2039-2117. Mediterranean Journal of Social Sciences MCSER Publishing, Rome-Italy Vol 4 No 12*
28. *Lopez, Sebastian M. (2005). Mobile Learning for Sustainable Development and Environmental Teacher Education.Faculty of Education, ARGOS-IUCA, University of Zaragoza, 50009 Zaragoza, Spain*
29. *Ololube, Nwachukwu Prince (2013). ASSESSMENT OF SCHOOL RECORD MANAGEMENT IN SECONDARY SCHOOLS IN FEDERAL CAPITAL TERRITORY. Department of Educational Foundations and Management, Faculty of Education, Ignatius Ajuru University of Education, Port Harcourt, Nigeria*
30. *Rowley, Jennifer E. (2006). Organizing Knowledge: An Introduction to Managing Access to Information.-4th ed.*
31. *Saayo, R., et.al (2008). Network based automated Enrolment and grading system for Morong National High School (Master's thesis) Morong National High SchooL*
32. *Sander, Gilbert W. (2002). Modal analysis using fiber optic sensors and neural networks for prediction of composite beam delamination. Publish. ed 28 June 2002 • Published under licence by IOP Publishing LtdSmart Materials and Structures, Volume 11, Number 4*
33. *Shepherd, W. and Yeo, R. (2003). Managing Records: a handbook of principles andpractice.January2003. DOI:10.29085/9781856049788. Publisher: Facet Publishing. ISBN: 9781856049788*
34. *Simmonds, PL (2001). Usage of Academic Libraries: The Role of Service Quality, Resources, and User Characteristics. March 2001.Library Trends 49(4):626-634*
35. *Silberschatz, Abraham (2006). DATABASE SYSTEM CONCEPTS, SIXTH EDITION.Published by McGraw-Hill, a business unit of The McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY 10020.*
36. *Soria, Rodriguez P.(2006). SecurePhone: a mobile phone with biometric authentication and e-signature support for dealing secure transactions on the fly. Proceedings Volume 6250, Mobile Multimedia/Image Processing for Military and Security Applications;625009(2006) https://doi.org/10.1117/12.665561*
37. *Stair, Ralph M. (1999). Microcomputer Technology in Schools of Business.https://doi.org/10.1287/inte.17.5.92*
38. *Tinn, Honhong (2001). Computer: A History of the Information Machine. Description: Fourth Edition: New York, NY: Routeledge, 2001*