ASSESSMENT OF EDUCATIONAL RECORDS MANAGEMENT IN PUBLIC JUNIOR SECONDARY SCHOOLS IN BAUCHI STATE, NIGERIA

Dr. Saleh Garba
malamsaleh@yahoo.com
+234 8065532474
Department of Education
School of Vocational and Technical Education
Abubakar Tatari Ali Polytechnic, Bauchi, Nigeria

Abstract
The study titled assessment of educational records management in public junior secondary schools in Bauchi state, Nigeria investigates the current state of educational records management in public junior secondary schools in Bauchi State. Specific objectives of the study were three; to assess the extent to which educational records are effectively managed, to determine whether educational records have been effectively digitalized, and to identify the challenges facing managing education records within the selected schools. A descriptive cross-sectional survey design was adopted for the study, targeting all principals, vice principals, and heads of department in public junior secondary schools in Bauchi South geo-political zone, with a total population of 1,140 individuals. Through a stratified random sampling technique, a sample size of 114 respondents, representing 10% of the population, was selected. Data was collected using structured questionnaires that explored the respondents' experiences and perceptions of records management in their schools. Descriptive statistics (mean, frequency, and percentage) were employed to analyse the data. The study findings suggest that there was a significant gap in the effective implementation and management of education records systems in public junior secondary schools in Bauchi state. The study also revealed that the process of digitalization has not yet reached an advanced or reliable stage and was facing multifaceted challenges.

Keywords: Educational records, analogue records, digital records, public secondary schools, Bauchi State

Introduction

Analogue record-keeping has been the traditional method involving physical documents like paper files and ledgers. This system dates back to ancient times when records were maintained manually (Miller, 2006). The shift towards digital records began with the advent of computers and digital storage solutions in the late 20th century. The transition has accelerated with advancements in Information and Communication Technology (ICT), leading to more sophisticated data management systems (Houghton et al., 2012).

Records management is an essential component of organizational administration, particularly in educational institutions where accurate, timely, and secure management of records is crucial for operational efficiency and educational outcomes. The two primary types of records management systems in use today are analogue (paper-based) systems and digital (electronic) systems. Both systems have distinct advantages and disadvantages, and their effectiveness varies depending on the context in which they are implemented Nwankwo and Ukoha (2020)

Analogue records management systems have been the traditional method for managing records in educational institutions for decades. These systems involve the physical creation, storage, and retrieval of records, typically in paper form. According to Ajayi and Salami (2019), analogue systems have been the cornerstone of records management in schools, particularly in regions with limited access to technology. These systems are straightforward, requiring minimal technical skills to manage and maintain. The primary advantage of analogue systems lies in their simplicity and low cost of implementation. As noted by Nwankwo and Ukoha (2020), analogue systems do not require advanced technology, making them accessible to institutions with limited resources. Furthermore, the tactile nature of paper records allows for easy review and annotation, which some educators and administrators prefer.

However, analogue systems have significant drawbacks. The most prominent issues include the physical space required for storage, the risk of records being lost or damaged due to environmental factors (such as fire or water), and the time-consuming nature of manually retrieving and updating records (Okojie & Ighoroje, 2020). Additionally, analogue systems are prone to human error, which can compromise the accuracy and reliability of records.

With the advancement of technology, digital records management systems have emerged as an alternative to traditional paper-based systems. Digital systems involve the use of computers and specialized software to create, store, retrieve, and manage records electronically. The adoption of digital systems in educational institutions has been driven by the need for more efficient and secure management of large volumes of data. Digital records management systems offer numerous advantages over their analogue counterparts. According to Adedokun and Okoro (2018), digital systems allow for faster access to information, more efficient data management, and the ability to back up and secure records easily. Digital systems also reduce the physical storage requirements, as records are stored electronically, freeing up valuable space within educational institutions. Moreover, digital systems support advanced data analysis and reporting, enabling school administrators to make more informed decisions based on accurate and up-to-date information (Adeola & Alabi, 2019; Higgins, 2008). The ability to share records electronically also facilitates better communication between different stakeholders, such as teachers, students, and parents.

Despite their advantages, digital systems are not without challenges. One of the primary barriers to the adoption of digital records management systems in schools is the high initial cost of implementation. This includes the cost of purchasing computers, software, and other necessary equipment, as well as the on-going expenses associated with maintenance and technical support (Chukwuemeka & Okeke, 2019; Cox & Wallace, 2002). Additionally, the successful implementation of digital systems requires a certain level of technical expertise, which may be lacking in some educational institutions, particularly in rural or underfunded areas. Another significant concern is data security. Digital records are vulnerable to cyber-attacks, data breaches, and other forms of unauthorized access. As noted

The Bauchi State government has recognized the importance of improving education management, including records management. Public junior secondary

schools in Bauchi are pivotal in the educational development of the state, offering a three-year programme that bridges the gap between primary and senior secondary education (Bauchi State Ministry of Education, 2021). The curriculum for junior secondary schools is designed to provide students with fundamental skills in subjects such as mathematics, English, sciences, and social studies (Federal Ministry of Education, 2018). As of the most recent data, Bauchi State has over 500 public junior secondary schools, serving tens of thousands of students. However, the education system faces significant challenges, particularly in rural areas where infrastructure and resources are limited. An important area of concern in these schools is the management of educational records, which is integral to ensuring the efficiency and effectiveness of the education system (Bauchi State Ministry of Education, 2020). Records management in public junior secondary schools is a crucial component of the educational process. Effective records management ensures that schools can track student progress, manage academic and administrative data, and comply with educational standards (Oluwole & Akintoye, 2020). Records in schools include student enrollment details, attendance records, academic performance reports, disciplinary records, and other administrative documentation. Proper management of these records is essential for decision-making, monitoring educational quality, and ensuring accountability (Federal Ministry of Education, 2018).

Problem Statement

Effective record keeping is a critical aspect of educational management, providing the necessary foundation for decision-making, accountability, and planning in schools. In the context of public junior secondary schools in Bauchi State, Nigeria, there is a growing concern regarding the adequacy

and efficiency of record-keeping practices, particularly in relation to the transition from analogue to digital systems. Despite the increasing push for digitalization in education, many schools continue to rely on traditional manual (analogue) methods of record-keeping, which may hinder the accuracy, accessibility, and security of essential educational data. The lack of standardized procedures for maintaining educational records, coupled with limited technological infrastructure, may further exacerbate challenges in record management, leading to inefficiencies in tracking student progress, managing resources, and ensuring compliance with educational policies. As the education sector in Nigeria moves toward modernization, it is crucial to assess the current state of record-keeping systems in Bauchi state's public junior secondary schools, exploring the nature of these records and identifying the barriers and opportunities for digitalization. This study, therefore, seeks to investigate the existing practices of record keeping in these schools, focusing both analogue and digital approaches, and highlighting the challenges and potential benefits of adopting digital systems. By examining the factors influencing record-keeping practices, this research aims to provide insights that can inform policy recommendations and improve educational administration in the state.

Objective of the Study:

This study aimed to assess the state of educational records management in public junior secondary schools of Bauchi state.
Specific Objectives:

1. To assess the extent to which educational records are effectively managed in public junior secondary schools of Bauchi state
2. To determine the extent to which educational records have been

digitalized in public junior secondary schools of Bauchi state

3. To identify the challenges facing educational records management in public junior secondary schools of Bauchi state

Research Questions

1. What is the degree to which educational records are effectively managed in public junior secondary schools of Bauchi state?
2. What is the extent to which educational records have been digitalized in public junior secondary schools of Bauchi state?
3. What challenges do educational records management face in public junior secondary schools of Bauchi state?

Methodology

A descriptive cross-sectional survey design was adopted for the study. The target population comprised all the principals, vice principals, and heads of department in public junior secondary schools within Bauchi South Senatorial Zone, with a total population of 1,140 individuals. A sample size of 114 respondents was selected through stratified random sampling technique, representing 10% of the focused population. The schools were stratified based on seven local government areas (LGAs) in Bauchi South Geopolitical Zone. The researcher employed the method of proportional allocation in which each stratum contributed a sample that was proportional to its size in the population (Kothari, 2013; Orodho et al. 2016). Finally, lottery technique of simple random sampling was used to select the samples identified by proportionate allocations (Orodho et al. 2016). Data for the study was collected through structured questionnaire. Likert scales rating, comprising five options was adopted in which respondents choose the option that best corresponds with their opinion about a given statement regarding their perception on records management in their schools. Descriptive statistics (Frequency, Mean and percentage and Standard Deviation were employed to analyse the data.

Results

Objective1: Objective 1 sought to assess the extent to which education records are effectively managed in public junior secondary schools in Bauchi state

Table 1: Analysis of Effectiveness of Education Records Management in Public Junior Secondary Schools in Bauchi State, Nigeria.

Statement	SD (1)	D (2)	N (3)	A (4)	SA (5)	M	SD	Remark
1. Education records are well-maintained in my school.**.**	80	27	0	3	4	1.46	0.914	Strongly Disagree
2. My school has adopted digital tools for managing records.**.**	93	10	1	4	6	1.42	1.04	Strongly Disagree.
3. Teachers and staff are trained in digital systems for managing records.	85	18	3	3	5	1.47	1.005	Strongly Disagree.
4. My school still relies heavily on manual, paper-based records.	2	6	2	45	59	4.34	0.888	Strongly Agree
5. Record-keeping is efficient in my school.	62	53	2	3	4	2.82	1.029	Neutral to Disagree,

Education records are systematically organized and well-maintained in my school. Mean = 1.46, SD = 0.914: The mean of 1.46 suggests that the majority of respondents strongly disagree or disagree with the statement, indicating that education records are not systematically organized and well-maintained in their schools. The relatively low SD (0.914) shows that there is some consensus among respondents, with a significant portion reporting dissatisfaction with the organization of records. Finding suggests that education records are not properly maintained. This result aligns with findings from other developing regions where record-keeping systems are often disorganized or inadequate (Kanu, 2020).

My school has adopted digital tools for managing education records effectively. Mean = 1.42, SD = 1.04: The mean of 1.42 reflects that most respondents strongly disagree or disagree with the statement, implying that digital tools for managing education records have not been effectively adopted. The SD of 1.04 indicates a somewhat varied response, suggesting that while the majority reject the use of digital tools, a few respondents still report some form of adoption. This finding depicts that digital tools are not adopted for managing records. Related studies contend that poor adoption of digital tools may be due to limited access to technology, low levels of digital literacy, or insufficient budget allocation for technological investments (Ojo et al., 2021).

Teachers and staff are adequately trained in the use of digital systems for managing education records. Mean = 1.47, SD = 1.005. With a mean of 1.47, respondents generally strongly disagree or disagree with the statement, indicating that teachers and staff are not adequately trained in using digital systems for managing education records. The SD of 1.005 shows

that there is agreement on this issue, with a clear consensus that training is insufficient. This finding indicates that there is insufficient training for teachers and staff in digital systems. Similar studies report that poorly trained teachers in technology systems are not likely to adopt and benefit from digital systems (Singh & Surendran, 2020; Prater et al., 2020).

The school still relies heavily on manual, paper-based records for tracking student progress and other important data. Mean = 4.34, SD = 0. 888.The mean of 4.34 suggests that respondents strongly agree that their schools still rely heavily on manual, paper-based records. This indicates a strong preference for traditional methods of record-keeping over digital systems. The SD of 0.888 shows that most respondents are in agreement, with little variation in responses, reinforcing the idea that manual record-keeping is the norm. Finding of this analysis reveals that junior secondary schools rely heavily on paper-based records. This is congruent with recent studies which observe that many schools in developing nations rely on paper-based records for school management, (Akinyemi et al., 2018). The current record-keeping system is efficient in supporting timely decision-making and reporting in my school. Mean = 2.82, SD = 1.029. The mean of 2.82 indicates a neutral to disagree stance on efficiency of current records system of their school. The SD of 1.029 also suggests some variability in the responses, with opinions ranging from dissatisfaction to mild agreement. These decisions depict respondents' doubts that current record-keeping system in their schools is efficient in supporting timely decision-making. This could be due to poor integration between digital and analogue systems, lack of updates, or a mismatch between the system and decision-making needs (Bebawi & Elwakil, 2017). Record-keeping is inefficient, but the result is on borderline.

Based on the analysis in this study, the findings reveal that there was lack of effective management of education records, both analogue and digital forms in public junior secondary schools in Bauchi state

Objective 2: Objective two sought to determine the extent to which education records have been digitalized in public junior secondary schools in Bauchi state

Table 2: Analysis of Response on the Extent to which Education Records have been Digitalized in Public Junior Secondary Schools in Bauchi State

Statement	SD (1)	DA (2)	N (3)	A (4)	SA (5)	M	SD	Remarks
1. My school has successfully digitalized key education records	90	12	2	3	7	1.46	0.920	Strongly Disagree
2. The digital records system in my school is regularly updated and maintained	61	32	4	12	5	2.61	1.070	Disagree
3. Teachers and staff have easy access to digitalized education records when needed	72	25	3	8	6	2.39	1.042	Disagree
4. There is sufficient training provided to school staff on digital records system	87	13	1	10	3	1.57	0.866	Strongly Disagree
5. There has been no effort to start digital records for managing student data in my school.	15	21	12	42	24	3.47	1.179	Agree

My school has successfully digitalized key education records (e.g., student attendance, performance, and personal information). Mean = 1.46 (SD = 0.920), The overwhelming majority of respondents (90 out of 114) strongly disagree with the statement, indicating that key education records such as attendance, student performance, and personal information have not been successfully digitalized. The low mean score supports this, suggesting that digital record-keeping is either non-existent or extremely limited in these schools. Similar study reported limited digitalization of education records and observed it was due to infrastructure issues, resistance to change, or lack of resources for digitization (UNESCO, 2020).

The digital records system in my school is regularly updated and maintained to reflect the most current data. Mean = 2.61, SD = 1.070. Although the mean score of 2.61 is slightly above the neutral point (3), the large number of responses in the "Strongly Disagree" and "Disagree" categories (93 out of 114) show that there is a significant gap in the regular maintenance and updating of digital records. This suggests that even where digital systems are present, they are not consistently kept up-to-date. This is congruent to the study finding that poor updating of digital records might be due to a lack of technical support, time, or training (Bebawi & Elwakil, 2017).

Teachers and staff have easy access to digitalized education records when needed for academic and administrative purposes. Mean = 2.39, SD = 1.042. The mean score of 2.39 indicates a general disagreement with the statement, highlighting that teachers and staff do not have easy access to digitalized records when needed. This could be due to issues such as limited infrastructure or poor integration of digital

systems, which significantly hinder the academic and administrative use of digital records (Akinyemi et al., 2018).

There is sufficient training provided to school staff on how to use the digital records system effectively**.** Mean = 1.57, SD = 0.866. With a very low mean score of 1.57 and a high frequency of strong disagreement (87 out of 114), this statement clearly indicates that staff training on the use of digital record systems is insufficient or non-existent. This lack of training likely contributes to the problems observed in the other statements, where digital systems are either not fully adopted or are underused due to the lack of knowledge and expertise. Recent literature portrays insufficient staff training on the use of digital record and relates the problem budget constraints or a lack of professional development programmes (Prater et al., 2020).

There has been no effort to start digital records for managing student data in my school. Mean = 3.47, SD = 1.179. This mean 3.47,   suggests that there is a

general agreement among respondents that the efforts being made to digitalize student records may not be a priority or consistently implemented in their schools. The standard deviation of 1.179 indicates moderate variability in the responses, reflecting differing levels of progress in digital records adoption among schools. The findings imply that while some schools have started digitizing records, the implementation is uneven. Related studies reveal that differing levels of progress in digital records adoption among schools was likely due to varying resources, training, and institutional priorities (Erdogan & Ozcinar, 2021; Blackwell et al., 2020).

Objective 2 Results Findings: The study findings in indicate that key education records have not been successfully digitalized in public junior secondary schools in Bauchi state. It was observed that efforts to digitalize student records were in their early stages

Objective 3: Objective three sought to examine the challenges facing education records management in public junior secondary schools in Bauchi state

Table 3: Results of analysis on the Challenges Facing Education Records Management in Public Junior Secondary Schools in Bauchi State

Statement	SD (1)	DA (2)	N (3)	A (4)	SD (5)	M	SD	Remarks
1. Lack of adequate infrastructure (e.g., computers, internet access)	3	9	5	34	63	4.21	0.920	Strongly Agree,.
2. Insufficient training for teachers and staff on digital tools	4	5	2	39	64	4.34	0.886	Strongly Agree,
3. Inadequate funding for records management systems	2	7	4	27	74	4.32	0.860	Strongly Agree
4. The heavy reliance on paper-based records creates challenges	10	12	3	45	44	3.99	1.074	Agree
5. There is a lack of clear guidelines for managing education records effectively in my school.	5	3	6	36	64	4.24	0.909	Strongly Agree

Lack of adequate infrastructure (e.g., computers, internet access) hinders effective digital record-keeping in my school. Mean = 4.21, SD = 0.920. The very high mean score of 4.21, with 63 respondents strongly agreeing, shows that infrastructure challenges—such as a lack of computers, internet access, and other essential digital tools—are a significant barrier to the effective management of digital records in schools. This suggests that the schools are not adequately equipped to embark transition to a digital record-keeping system. Lack of access to computers, limited internet connectivity, and inadequate technology resources are common issues faced by schools in developing regions (Akpovire & Oladeji, 2020). Digitalization efforts in education often falter when these basic resources are missing, which can severely limit the impact of digital record-keeping systems (Bebawi & Elwakil, 2017).

Insufficient training for teachers and staff on digital tools and software affects the management of education records. Mean = 4.34, SD = 0.886. With an even higher mean score of 4.34, the majority of respondents (64 out of 114) strongly agree that insufficient training for teachers and staff is a critical issue. This lack of training on how to use digital tools and software likely prevents the effective use of available technology, contributing to the overall inefficiency in education records management. Research indicates that the lack of such training in many schools contributes to inefficiencies in record management (Bebawi & Elwakil, 2017; Prater et al., 2020).

Inadequate funding for records management systems (both digital and analogue) is a major challenge in my school. Mean = 4.32, SD = 0.860. The mean score of 4.32 indicates strong agreement that funding is a major challenge. Most respondents (74 out of 114) strongly agree that inadequate financial resources are a barrier, not only for developing and maintaining digital systems but also for properly managing traditional (analogue) records. This underscores a widespread issue in schools' ability to invest in necessary resources for records management. This challenge is widespread in developing regions where educational budgets are often insufficient to support digital transformation (Ojo et al., 2021).

The heavy reliance on paper-based records creates challenges in terms of storage, security, and retrieval of information. Mean = **3.99**, SD = 1.074. This statement received a relatively high mean score of 3.99, showing general agreement that many schools rely on paper-based records. This suggests that schools are still dependent on paper, despite the known issues associated with such a system. The logistical challenges of paper-based records, including physical storage space, vulnerability to damage or loss, and difficulty in accessing records quickly, are well-documented in the literature (Kanu, 2020; Khan et al., 2019). Paper-

There is a lack of clear policies or guidelines for managing education records effectively in my school. Mean = 4.24, SD = 0.909. The mean score of 4.24 suggests strong agreement that the absence of clear policies or guidelines for record management is a key challenge. This result reflects the idea that many schools may not have formalized or structured approaches to managing records, whether digital or paper-based. And this situation contributes to inefficiencies and confusion in record-keeping practices. Literature contends that the absence of clear frameworks for record management can lead to inefficiencies and potential legal issues, especially as schools deal with sensitive student data (Singh & Surendran, 2020).

Objective 3 Results Findings: The findings in this objective reveal that inadequate infrastructure, lack of staff training and unclear policy guidelines on record-keeping practices were the main constraints hampering records management processes in public junior secondary schools in Bauchi state,

Conclusion

Findings of the study suggest that there was a significant gap in the effective implementation and management of education records systems in public junior secondary schools in Bauchi state. Furthermore, it was revealed that the process of digitalization has not yet reached an advanced or reliable stage in public junior secondary schools in Bauchi state. The study established that digitalization of education records in these schools was still in its early stage, and evidently facing significant challenges. The challenges in education records management identified by this study include inadequate infrastructure, lack of staff training and unclear policy guidelines on record-keeping practices in public junior secondary schools of Bauchi state.

Recommendation

Based on study findings, the following recommendations were made:
1. The Ministry of Education Bauchi should provide infrastructure such as computers, internet access and proper storage facilities in order to enhance proper records management in public junior secondary schools in Bauchi state
2. In order to hasten the process of digitalization of key education records in public junior secondary schools in Bauchi state, the study recommends that the Ministry of Education, Bauchi should organize a hands-on training workshop for teachers and administrative staff to improve their skills in the use of digital tools.
3. The study recommends that the Ministry of Education Bauchi state should provide clear policy guidelines on record-keeping practices. Thereafter, mandate all public junior secondary schools throughout the state to implement standardized and consistent record-keeping systems for greater accountability and efficiency.

References

Adedokun, M., & Okoro, C. (2018). Challenges of digital records management in secondary schools in Nigeria. *Journal of Educational Management, 15*(2), 115-128.

Adeola, F., & Alabi, T. (2019). Professional development and capacity building for records management in Nigerian secondary schools. *Nigerian Journal of Education, 21*(1), 89-102.

Ajayi, K., & Salami, R. (2019). Analogue vs digital records management in Nigerian secondary schools: An assessment. *International Journal of Educational Administration, 14*(3), 201-217.

Akpovire, A. J., & Oladeji, J. I. (2020). Examining the impact of digital records in educational institutions: Evidence from secondary schools in Nigeria. *Educational Technology & Society, 23*(4), 15-24.

Akinyemi, O. M., Oladipo, D. O., & Atanda, A. I. (2018). Challenges of digital record keeping in secondary schools in Nigeria: Implications for effective management. *Journal of Educational Administration and Policy, 15*(2), 67-75.

Bauchi State Ministry of Education. (2021). *Annual report on public education in Bauchi State*. Bauchi: Government Press.

Bebawi, A., & Elwakil, H. (2017). Digital records and e-government in educational institutions in developing countries. *International Journal of Educational Technology, 16*(3), 125-138.

Chukwuemeka, P., & Okeke, A. (2019). The impact of policy frameworks on records management in Nigerian public secondary schools. *African Educational Research Journal, 7*(4), 194-210.

Cox, R. J., & Wallace, D. P. (2002). *Electronic records management*. Society of American Archivists.

Federal Ministry of Education. (2018). *National policy on education (7th ed.)*. Lagos: NERDC Press.

Higgins, S. (2008). *The impact of digital technologies on education*. Routledge.

Houghton, R., Kable, M., & Stewart, J. (2012). The evolution of electronic recordkeeping: A comparative analysis of the benefits and risks. *Records Management Journal, 22*(3), 152-165.

Khan, N. S., Amin, F., & Latif, A. (2019). Barriers to effective record keeping in public sector education: A case study of secondary schools in Pakistan. *Journal of Educational Management, 35*(4), 482-495.

Kanu, I. A. (2020). The impact of record-keeping systems in educational institutions in developing countries. *International Journal of Educational Research, 19*(1), 50-66.

Kumar, S., Bansal, A., & Verma, A. (2018). The digital divide in Indian education: Challenges and opportunities. *International Journal of Educational Management, 32*(4), 789-802.

Miller, T. (2006). *The evolution of record keeping: From paper to digital*. Springer.

Munyua, H. W. (2015). The impact of digital record keeping on school administration in Kenya. *Journal of Educational Administration and Policy, 7*(2), 55-68.

Nwankwo, O., & Ukoha, P. (2020). Barriers to the adoption of digital records management in rural secondary schools in Nigeria. *Journal of Information Science, 36*(1), 45-62.

Ojo, A., Adewumi, A., & Adebayo, D. (2021). The role of digital tools in enhancing education record keeping in Sub-Saharan Africa. *African Journal of Educational Technology, 5*(2), 33-45.

Okojie, J., & Ighoroje, C. (2020). Hybrid records management systems: A solution for Nigerian secondary schools. *Journal of African Education, 11*(2), 76-89.

Oluwole, I. A., & Akintoye, S. O. (2020). *The role of administrative infrastructure in managing education records in Bauchi's public schools*. *Journal of Educational Administration*, 18(4), 98-109.

Prater, M. A., McNeil, S., & Moya, C. (2020). Training teachers for digital record keeping: A call for action. *Journal of Educational Research and Practice, 10*(1), 52-63.

Singh, N., & Surendran, T. (2020). Professional development and digital records in educational institutions. *Journal of Educational Technology, 27*(3), 122-135.

UNESCO. (2020). *Digital transformation in education: The role of information and communication technology*. Paris: UNESCO.