AN APPRAISAL OF SCHOOL ADMINISTRATOR'S DATA MANAGEMENT SKILL FOR EFFECTIVE MANAGEMENT OF SECONDARY SCHOOLS IN ENUGU STATE

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Abstract

An appraisal of the role of school administrator in establishing effective management in secondary schools in Enugu State is a research work which delve into the administrator's (principal) role in secondary schools in Enugu State. The work restricted the roles of an administrator to that of data management in secondary schools in Enugu State to ensure availability of quality, necessary and required data for timely decision making and other purposes. The work concentrated on the concept of data management; types and sources of data; importance of data management; challenges of data management; the role of an administrator in data management; conclusion; the statutory data were outlined to include admission register, log book, school time table, visitor's book, attendance register among others while non statutory records include: health records, punishment book, staff records. It was recommended that: skilled and experienced personnel are used for data collection, processing and storage; proper attention should be given to data management by school administrator; effective and efficient communication among personnel or employees and principal should be established among others.

INTRODUCTION

One of the onerous core of an administrator in a secondary school is that of ensuring that there is effective management in the school. The administrator in the secondary schools of Enugu State is not an exception. There are numerous ways in which the school administrator can ensure effective management in the secondary schools of Enugu state. For the purpose of this work, the functions or roles of the administrator is limited to the management of data ability of the administrator to ensure effective management in secondary schools in Enugu State.

Management is defined by Onyiade (2004) as the act of coordinating both human and non-human resources to achieve organizational goals. Management involves planning, controlling, staffing, coordinating, directing and supervising the available resources. The manager of secondary school is the principal. The management of secondary schools refers to the process of making use of educational resources towards the achievement of educational goals at secondary school level. The Educational resources include both human and material resources. The human resources in secondary school include; the teachers, Administrative staff (non teaching staff) and students. The material resources include: the fund, facilities, structures, instructional materials among others.

The goals of secondary education according to the national Policy on education are:

i.   To prepare the child for higher education;

ii   To provide opportunity for products of primary school to receive secondary education;

iii   To prepare the students so that they can live effectively in our modern age of science and technology;

iv.   To produce a generation of people who can think for themselves, respect the views and feelings of others. (Federal Republic of Nigeria, 2013).

The administration of secondary schools and their activities towards the actualization of the above mentioned goals requires accurate information on school personnel like: students, teachers, non- teaching staff, in the schools among others. It is however, not possible to take decision on school activities except information are available. Therefore, the volume and quality of activities available will determine the quality of decisions that are taken. These records have to be accurate, reliable and stored. These school records serve as banks where information are deposited and kept with hope of retrieving and utilizing them when necessary.

In an organizational set-up like the secondary school, it is not easy to keep every data or information generated in the memories of the school administrator because the volume of information is very large. Therefore, these education data must be utilized and properly kept for retrieval purposes for future use. Data management is therefore imperative for the effective management of the schools. It helps the school administrator to have enough information to plan and take decision, as well as, action that will facilitate the achievement of stated educational goals and objectives. It guarantees the continuity of the school system. There will always be cases of leap into the dark in the absence of accurate and accessible records that will be made possible through an effective record keeping practice. According to Nwangwu (2013), data collection and analysis are crucial in planning and other administrative roles. These data include the educational resource available- human and material, the performance of the system, past and present situation, future goals of the system, the students flow in the system-enrolment ratio, pupil-teacher ratio, sex ratio, admission rate, promotion rate, repetition rate, dropout rate, transition rate, enrolment projection, stock of teaching manpower, teacher retention ratio.

The continued survival of the secondary school system depends greatly on the ability of the school administrators to utilize data efficiently and effectively. The administrators are expected to be knowledgeable in data management. Unfortunately, a lot of school administrators seem to be ignorant as a result of their low level of training in information and communication technology. Consequently vital information are left in the hands of clerks and messengers who have no knowledge of the importance of documentation of data in their custody. Such practices have led to the divulgence of the official secrets and falsification of records which perhaps has brought strained relationship and conflicts in the school. Information is considered as the most vital tool for the present, future and survival of an organization such as the secondary school, inspite of this, it appears as if they are often neglected and not properly managed by school administrators, most of the time, there are no control measures for ensuring care and safe custody of data in the secondary schools, while Some record files are seen without any information inside because of lack of care.

It seems school administrators have not developed the desired culture in data management. It is no surprise to find data or information not properly utilized and/or kept. Records are not free from mutilations, eaten up by moths, termites, beaten by rain and burnt half way by fire. Furthermore, documents are sometimes found on bare floor. This has led to misplacement of vital documents, incomplete files with incomplete information. This has become a common occurrence in our secondary schools due to poor storage facilities. This may have accounted for the inability of administrators to plan and co-ordinate the various levels of education without tears and embarrassment from time to time. This does not only impair the smooth running of the education system but it grossly impacts on the staff and students and they often need such vital information or data for important purposes. It also makes retrieval of such vital information difficult.

Nwangwu (2013) asserted that most of the head teachers practically had no records on the activities they do in schools. It becomes apparent that some head teachers have limited knowledge of management of school record even after they might have been trained. According to Oweh (2012), a significant relationship was found between record-keeping and administrative effectiveness of secondary school administrators in Akwa-Ibom State. Gurr (2000) found that information management system have largely changed roles of school administrators. He further stated that school administrators who do not use information management system are not able to perform their duties well. If good records are kept, the school administrators will find the administration of the school easier.

Concept of Data Management

Data management   is not a new concept. For years, schools have collected a vast array of students' and institutional information such as test scores, enrolment data, finance and human resource data. The school information provided will help school management process as well as to make appropriate and effective changes in the school practices. According to Rob and Corenel (2005), data management is a discipline that focuses on proper generation, storage and retrieval of data for meaningful educational decision. Lucas and Olaniyan (2008) on the other hand defined data management as the application of systematic and scientific control of recorded information that is required for the, operation of schools. Kamile (2000) viewed data management as a predictive decision, a support system with which institutions can collect, cleanse, integrate, Visualize and analyze data. Gurr (2000) opined that data management is the management of information system designed to match the structure, management task, instructional processes and special needs of the school. Therefore, data management refers to the policies and practices, by which institutions effectively collect, protect and utilize digital information assets to meet academic needs. It involves policies and practices that ensure accurate and consistent information. It involves collection, manipulation, storage, retrieval of information (Nwangwu, 2013).

Types and Sources of Data

Duosaro (2004) identified data as qualitative and quantitative information that help in the operations of the school system. The qualitative data relate to information on objectives of the school, curriculum and content utilized in the system, the philosophy of educational objective, educational policy being pursued, the rules and regulation guiding education. The quantitative data can be quantified in figures and form of flow of statistics such as number of students, teachers, facilities and the amount of money budgeted and spent (Nwangwu, 2013). Quantitative data can be flow or stock statistics. According to Ani (2007), flow statistics in educational planning is designed to accommodate the future and at the same time taking care of the present. Examples of flow statistics are projected number of teachers to be recruited or transferred and current number of pupils in schools. Stock statistics refers to the prevailing state of things when stock was taken.

In the same vein Igbineweka (2005), opined that data at the secondary school level can be generated from these various sources.

i.   Enrolment of students broken down into sex, age, grades and disciplines for all levels of education at students' point of entry.
ii.   Students flow rates-promotion, repetition, drop out, transition and graduation for all levels of education.
iii. The number of teachers broken down into sex, age, grades, qualification, discipline, attrition at all levels of education.
iv.   Approved class size including student-teacher ratio bench mark assessment.
v.   Facilities: The number of classrooms, laboratories, workshops and studios.
vi.   Records of students' attendance in schools.
vii. Records of students' academic performance in standardized examination including continuous assessment and test scores.
viii. Cost of running institution: Capital and recurrent costs.
ix.   Disciplinary referrals.

Information or data generated are collated and these data are either written manually or electronically. Education law demands that every educational institution keep certain school records to help the school administrator and the staff give information about the students and staff. The records are basically classified into two types: statutory and non-statutory records. Statutory records refer to school records that must be kept in secondary schools as they are required by law, the following statutory records and books are kept by the school administrators and produced at the request of any supervisory officer in charge of any educational matter. According to Nwangwu (2013) statutory records include:

i.   Admission register
ii.   Log book
iii. Copy of national policy on education
iv.   Attendance register
v.   School time table
vi.   Diary of works
vii. Visitors book
viii. Time and movement book
ix.   Inventory and budget books
x.   Teaching service manual.

The non-statutory records include records that are kept in the school by the vice-principals and other teachers. The non-statutory records according to Nwangwu (2013) are:

i.   Teachers' mark book
ii.   Lesson notes
iii.   Health records.
iv.   Punishment book
v.   P.T.A records
vi.   Club/association books
vii.   Minutes of meeting
viii.   Staff records.

Importance of Data Management

i.   Education Data management serves as information banks with the hope of retrieving and utilizing such information when and where necessary.
ii.   It helps the school administrator to determine the academic performance of students.
iii.   It helps in planning for human resource and material acquisition and utilization. Teachers, non-teaching staff and students constitute the personnel in the school. They are to be absorbed in the school in adequate quantity and quality.
iv.   It helps the school administrator in decision making process, thus it provides useful information to educational planners and administrators.
v.   It ensures accountability to the parents, students, communities, employers of labour and other stakeholders. Furthermore, the financial transaction of the school will be properly documented and preserved.
vi.   Data management helps to control the quality and quantity of information that is created in a manner that effectively serves the need of the school.
vii.   It assists the school administrator to manage teachers productivity effectiveness and efficiency. The school administrator requires reliable and timely information on teachers and other school data. Such information will enhance the smooth running of the school as dire areas of needs will be identified and given adequate attention.
viii.   Data management will help in financial accountability, Mbiti (2006) opined that without financial record keeping, no proper accountability would be made. Every expenditure, funds disbursed through school fees, levies etc. should be properly documented and presented to avoid misappropriation.

It is perhaps in the light of the above, that McLeod, Hare and Johare (2004) emphasized that information is a key business resource and many organizations now recognize that strategic management of their internal information often captured in the form of records contribute to maintaining or creating competitive advantage.

Challenges of Data Management in Secondary Schools

Durasaro (2004) identified some issues in education data managements. The issues include:

- The issue of availability of education data;
- The inaccuracy of available education data;
- Mistakes in the analysis of education data (owing to level of training of analysts);
- the general attitude of resistance to record management; and
- Difficulty in retrieval of data on time.

Lessing and Scheepers (2001) listed the following factors as typical problems that occur in data management:

- Lack of ICT facilities;
- Inadequate competent manpower;
- Epileptic electricity and power supply;
- Prohibitive cost of the equipment;
- Poor funding of schools.

Osakwe (2011) identified many factors that served as barrier to effective data management as:

- Lack of reprisal;
- Few administrators and teachers who do not have formal training   in analyzing and interpreting data;
- Unskilled and inexperienced management personnel;
- Low priority given to record management;
- Lack of communication and collaborations among personnel in data entry.

These are problems that educational administrators/planners must anticipate and deal with before accurate record keeping is achieved. School Administrator is the chief executive in the school he is responsible for all that happens in the school. Nakpodia (2011) viewed the school administrator as the leader, guide, chief communicator, supervisor and teachers' teacher. He is expected to use his administrative skills to achieve educational goals. The school administrators need to have adequate and accurate data about all the activities and operations in the school for effective management of school.

The Roles of a School Administrator in Data Management for Effective School Management.

- **Adequate Supervision and Inspection by School Administrators:**
  The administrator should endeavour to carry out periodic checking of generated data. They should also ensure that data are properly recorded and properly managed. This will ensure that files (manual or electronic are with correct and adequate information needed, filter errors and inadequate (Nakpodia, 2011) supports this view that supervision is one of the processes by which school administrators attempt to achieve acceptable standards of performance and results in data management.
- **Proper and Better Communication:** Like in any other organization, the management of data in the school system is a cyclic process. It involves the principal, teachers, students, messengers and cleaners. Though the bulk of the data is handled by the school administrator. There is need for rapport among all concerned. He must get the staff to appreciate the need for good school community relationship. This is because most staff do not understand why the school should have any relationship among themselves. If the staff do not understand why this should be done, they may sabotage his effort thinking he is doing it on personal interest. This is to ensure the efficient transfer of data. The school administrator recognizes that this collaborative inquiry requires sufficient time to have data driven conversation.
- **Ensures Professional Training and Development in Data Management:** As the administrative leader and in order to improve instructional programmes in the school, data management must be improved. The school administrator ensures that the staff recruited is trained on how to use and preserve data, made familiar with relevant offices, Periodic seminars, workshops and induction courses are conducted for them on data management. The Administrator should ensure that

resource persons that are vast in data management should be invited to give talks in such seminars and workshops.

- **Allocation of Resources and Materials that Relate to Data Management:** The school administrator has to provide necessary resources/ materials needed for effective keeping of data or information. Facilities such as; computer, record files, jackets, registers, spread sheets, cabinets, and many others are necessary for data management. The provision of these, will help in the effective utilization and storage of data. These facilities should also be made functional at all times, such materials can be provided by soliciting help from cooperations such as telecommunications, companies, banks and other cooperate bodies, levies from students and parents.

- **Introduction of Electronic Technology:** Records/Information can be stored effectively through the use of electronic system such as computer. Computer has become an important device for handling voluminous information for co-operate bodies. The use of these technologies ensures that records of services and activities are stored and retrieved immediately when needed by the school administrator. He ensures that competent hands are employed who can work on computers especially in the area of data processing and management. He encourages the opening of a computer laboratory in his school where staff and students can be exposed to computer usage. The school administrators ensure that there is good power supply in the school, provides a good generator to aid the functioning of the computer laboratory. He also ensures proper maintenance culture of the computers in his school. All this will help to reduce the manual task of managing data.

- **The School Administrator must be very Knowledgeable and be an Expert in Data Management:** He should have adequate and accurate information of teaching and non-teaching staff and other school data for effective planning and supervision of teaching and learning.

- **Provision of Central Record Stores/Data Base Planning System:** The school administrator ensures that there is a central record store instead of putting back files on bare floors, top cabinets and shelves must be provided in the offices. The stores can be arranged according to various sections and units. Where electricity is made available, computer room or ICT room can be established, where computerized technology can be used for record/data storage. It is the role of the school administrator to see that they are handled by competent officers who are experts in data management. This will ease congestion of small spaces and prevent files from been eaten up by moths and termites or beaten by rain.

- **Provision of Adequate Funds:** The school administrator receives subvention from the ministry of education for the running of school activities. It is the duty of the school administrator to make funds available for the procurement of materials needed for data management. He can also source for funds from the Parent Teachers Association fees, community and those who are interested in education. Materials can be donated to improve the data management system.

- The school administrator should also ensure periodic review of all information or data and ensure that data/information is complete in their appropriate positions, and contained in office records and files. He should further ensure that documents are kept and preserved for future purposes. School administrators should also prevent human and non-human interface interference on data management.

Conclusion

Finally, data management is a sensitive issue in the administration of secondary schools in Enugu State as no proper planning, decision making and other administrative activities that will engender effective management in the secondary schools will be successful without good data collection, processing and

storage. Therefore, school administrator should ensure proper data management to avoid loss of important information or documents to avoid distortion of information which is capable of causing confusion in the school system. The danger of misplacing important records should always be averted by the school administrator. Data management conclusively refers to strict application of pedagogies in the collection, processing, storing, retrieving and using of necessary and required data for administrative purposes. Data in secondary school are generated from different sources. The data that are kept in secondary schools are categorized under statutory and non statutory. The importance of data management in secondary school cannot be overemphasized as no proper planning or achievement of set objectives can be achieved without the availability of necessary and required data. In spite the numerous importance of data management in secondary schools, the challenges abound.

Recommendations

Sequel to the imperative nature of data management as one of the onerous core of a school administrator, the school administrator should ensure that:

- Skilled and experience personnel are used for data collection, processing and storage.
- Proper attention should be given to data management.
- Effective and efficient communication among personnel or employees.
- Personnel should be trained and retrained regularly on data management.
- Provision of ICT facilities for proper data management.
- There should be regular power supply.
- Avoid distortion of data to avoid misinformation.

References

Ani, C.I. (2007). *Dynamics of School Supervision*. Enugy: Cleston Agency LTD.

Durosaro, D.C. (2004). *Statistical needs for Educational Planning in Nigeria.* Ibadan: Reginasons Book Publishers.

Federal Government of Nigeria (2013). *National Policy on Education.* Lagos*:* NERDC Press.

Gurlick, H.L. (2013). *Administrative Management Theory, in V.F.s Peretomode, (eds), Theories of Management: Implications for Educational Administration.* Benin City: Publishing Global.

Gurr, D. (2000). *How Information and Communication technology is changing the work of principals*. Hongkong: International Congress of school Effectiveness and Improvement.

Ifedili, C.J. & Agbaire, J.J. (2011). Management of Educational Records in Nigeria Universities for Better *Results. Review of European studies, 3(2), 71-73.*

Igbineweka, V.O. (2005). *Data Collection and Statistical Analysis in Educational Management in Omoregie, E. O. (eds), Perspectives in Educational Management.* Agbor: Central Books Ltd.

Jones, D. (2003). Data base management in Educational Sector. *Educational Journal, 4*(2)*,* 30-40*.*

Kamile, D. (2006). School Management Information Systems in Primary Schools. *Journal of Educational Technology, 5*(2)*,* 162-168.

Lessing, N. & Scheepers, C. (2001) *Information is a management issue (5th edition).* Johannesburg: CSIC.

Lucas, B.O. & Olaniyan, A. (2008). Leader Roles of schools administrators and challenges ahead in Post-Primary School Administrators and challenges Ahead in Post-primary Institutions in *Nigeria. European journal of Scientific Research, 24*(2), 172-178.

Mbiti, D. (2000). *Foundation of School Administration Book Keeping.* Nairobi: Oxford University Press.

Mcleod, J., Hare, D., & Johare, R. (2004). Education and Training for records management in the Electronic Environment: The research for appropriate model. *Information Research, 9(3), 21-24.*

Nakpodia, E.D. (2011). The Dependent Outcome of Teachers Performance in Secondary Schools in Delta State: An Emperical Assessement of Principal's Supervision *capacity, African Journal of Education and Technology, 1,* 15-24.

Nwangwu, I.O. (2013). *Nigerian Education: Contemporary challenges and New Directions*. Enugu: New Generation Books.

Oniyade, K. (2004). *Record keeping and effective management of educational sector.* Abeokuta; KAPPCO Nigeria Limited.

Osakwe, N.R. (2011). Management of School Records by Secondary School Principals in Delta State Nigeria. *The social Sciences, 6*(1), 40-44.

Oweh, V.E & Ekpedeme, P. (2012). An Empirical Study between Record keeping and Administrative effectiveness of secondary schools in Akwa-Ibom state. *An International Journal, 4*(2), 62-65.

Rob, P. & Coronel, C.M. (2000). *Data base system design, implementation and management (4th Edition).* Cambridge: Course.

Wayman, J.C. (2005). Involving teachers in data driven decision-making: using computer data system to support teacher inquiry and reflection. *Journal of Education for students placed at Risk. 10*(3), 295-308.