

## E-Records Strategies and Service Delivery of Public Secondary Schools in Rivers State

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### **Abstract**

*The study investigated E-records strategy and service delivery of public secondary schools in Rivers State. The research design adopted for this study was correlational design. The population of the study consist of 274 principals and 548 administrative staff in public secondary schools in Rivers State. A sample size of 391 following stratified sampling technique in which 17 respondents were chosen from each of the 23 local government areas in Rivers State. Out of the 391 copies of questionnaire distributed, 350 or 92% were duly completed and returned. The study therefore based its analysis on the returned copies of questionnaire. Two sets of questionnaire were distributed to the two sets of respondents (principals and administrative staff). The questionnaire was titled: 'Use of E-records strategy and Service Delivery in Public Secondary Schools in Rivers State' (ESSDPSQ). The modified four point Likert Scale of Strongly Agree (SA) -4 points Agree (A) – 3 points, Disagree (D) -2 points and Strongly Disagree (SD)- 1 point with the total number of twelve (12) items in the questionnaire. The reliability of the instrument was done using Crombach Alpha (SPSS) version 23) and obtained .911 > .71 which showed that the instrument was highly reliable. The method of analysis used for the study was Pearson Product Moment Correlation Coefficient used in testing the three hypotheses at .05 significance level, while mean and standard deviation were used in answering the research questions. The findings of the study showed that there is very minimal e-records system in public secondary in Rivers State. The study recommended that public secondary schools in Rivers State should be equipped with e-facilities and the staff trained for the use of such facilities for administration of public secondary schools in Rivers State.*

**Keywords:** E-records, service delivery, public secondary schools, administration, Rivers State

## **Introduction**

As enrollment in schools increases globally on a daily bases, the available resources may become over-stressed. The situation becomes even more frightening when universal education program in Nigeria is been implemented. Therefore, adequate record keeping of the human and material resources through electronic storage and dissemination is needed to address the issue of ever-increasing enrollment. As well as the need to provide schools with human and material resources that can help them achieve sustainable educational objectives. Additionally,) the rising cost of running school systems leaves some schools with low quality and inadequate human and material resources. This is because there is no cheap education the world over. Thus, the need for alternative ways of utilizing slim resources to attain set objectives makes school e-record keeping imperative. The complexity in school administration, its constraints, contingencies, and other difficulties also make recording keeping a necessity. The scarce resources in schools may be wasted if their utilization and underutilization is not properly recorded. There is a need to keep record of all school activities as part of effective school administration. Record keeping and the management of records is a vital responsibility of the school administrator because of the indispensable role of records and information in the day-to-day activities of the school system. School managers rely on the short and long-term data captured in records to make effective decisions about immediate issues and more comprehensive school policies. Secondary School records are official documents, students' enrollment, school results, certificates and transcripts. E-records ensures that information are kept and preserved and retrieved anywhere within and outside the school environment. Such records are kept by principals, teachers, counselors and administrative staff. The purpose of record keeping for effective school management is to ensure that accurate and proper records are kept of student achievement and growth, school activities and matters that will promote school efficiency and effectiveness. Record keeping otherwise known as storage of information is important functions of both the administration and teaching staff of a school.

## **Statement of the problem**

Electronic records have been discovered to be very convenient, fast and accurate in generating, storing and disseminating required information in the school system. Information and communication technology is almost taking over every facet of human activity. However, it is very unlikely that e-records are implemented in safe keeping of information in public secondary schools in Rivers State. Heads of secondary schools appear to struggle with information retrieval. Students' enrollment figures are suspected to be very uncertain. Staff files and details seems not be easily captured and presented during routine inspections and accreditation. Students who may require transfer or certification seem to encounter delay as a result of the manual process involved in transferring their information in their new schools. This study therefore seeks to investigate the status of use of e-records for service delivery in public secondary schools

in Rivers State with a view of proffering recommendations on to operate a smoother secondary school service delivery with the use of information and communication technologies.

### Objective of the study

The purpose of the study is to investigate e-records and service delivery in public secondary schools in Rivers State; with the following specific objectives:

1. To find out the relationship between use of e-records in students enrollments and service delivery in public secondary schools in Rivers State.
2. To find out the relationship between use of e-records in students results and certificates and service delivery in public secondary schools in Rivers State.
3. To determine the relationship between use of e-records in staff records and service delivery in public secondary schools in Rivers State.

### Research questions

The following research questions guided the study:

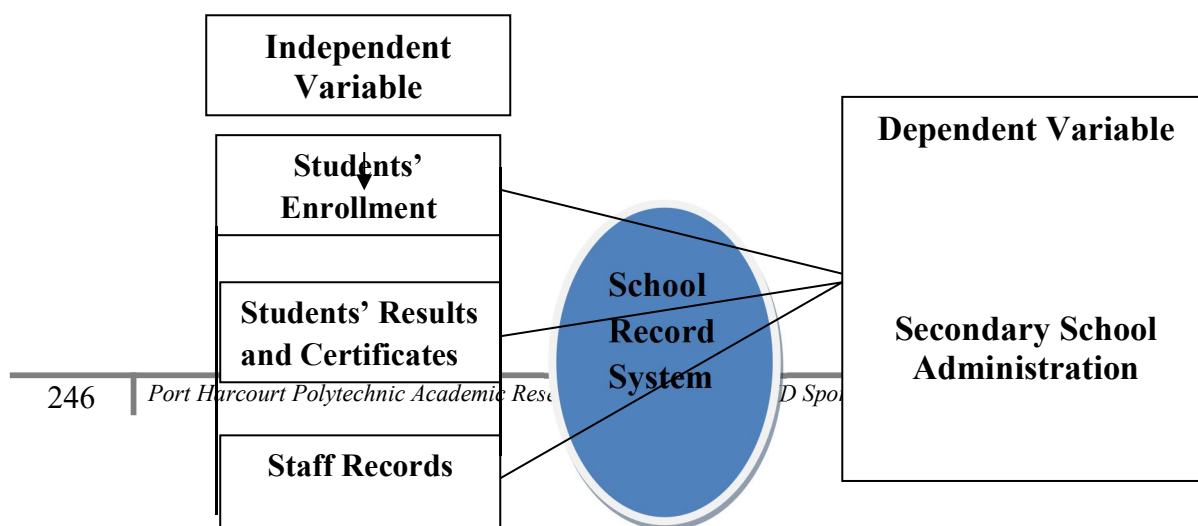
1. How does use of e-records in students' enrollments relate to service delivery in public secondary schools in Rivers State?
2. How does use of e-records in students' results and certificates relate to service delivery in public secondary schools in Rivers State?
3. How does use of e-records in Staff records relate to service delivery in public secondary schools in Rivers State?

### Research hypotheses

The following null hypotheses guided the study:

1. There is no significant relationship between use of e-records in students' enrollments and service delivery in public secondary schools in Rivers State.
2. There is no significant relationship between use of e-records in students' results and certificates and service delivery in public secondary schools in Rivers State.
3. There is no significant relationship between use of e-records in staff records and service delivery in public secondary schools in Rivers State.

### Conceptual Clarification



Researcher's guide, 2021

### **The concept of e-records**

E-records otherwise called electronic records are the recorded information, documents or data that provide evidence of policies, transactions and activities carried out in school organizations, Osakwe (2004). E-records may be categorized as text files (files produced by word processing programmes or by other software); data files (computer processable files that store numeric and sometimes textual information as quantitative values so that numbers can be manipulated using arithmetic processes); analogue audio and visual records (sound documents and images to be played back); disaggregated data (information collected through remote sensing systems); databases (structured collection of interrelated data); machine instruction sets (records created by the action of intelligent machines); image files (records containing computer processable images that generally exist as hard copy before being converted into images) and digital documents (files consisting of numeric data, images or sound recorded digitally in one uniform structure). The increasing use of ICT, especially the Internet, in government operations around the world driven by public sector reform, has given impetus to the generation of e-records. Most school e-record systems consist of eight activities, namely: create, store, update, retrieve, use, appraise and retain, archive, and dispose (UNESCO 2018). An electronic record is defined as records in electronic or digital form that are created, captured, maintained or the government kept carrying out the function in accordance with the definition of records given in the National Archives Act 2003 including school use and reference (National Archives of Malaysia (NAM) 2003; Osakwe 2011).

Records include but are not limited to papers, official documents, files, lists, informational materials, books, maps, plans, drawings, photographs and sound recordings in electronic or digital form. E-RECORDS is a form of electronic records management system and may include information in various mediums such as paper records and any computer records (Johnston & Bowen 2005). E-RECORDS is also referred to as a form of automation system that serves to manage the creation, use, maintenance and disposition of electronic records created for the purpose of providing proof of business activity. The system must be able to maintain and protect contextual information (metadata), the sharing of information in the records, access secure, and control the relationship between the records (National Archives of Australia 2005). However, according to the International Standards Organization (ISO 15489 2016), the implementation of ICT can assist E-RECORDS, while its improper design can cause problems rather than supporting its management.

### **Students' enrollment and secondary school administration**

Secondary education is the education given to children after their primary education. It is a bridge between primary and tertiary education (FRN, 2014). The focus of secondary

education is to prepare the individual to be a useful member of the society. In order to achieve the above focused idea, FRN (2017) states:

Secondary education shall, cater for the differences in talents, opportunities and future roles, inspire students with a desire for self improvement and achievement of excellence; raise a generation of people who can think for themselves, respect the dignity of labour; provide, skills necessary for agricultural, industrial, commercial and economic development (p.14). These lofty goals may not be attained in an over-enrolled classroom. E-records ensure that the required number of students of 40 -1 teacher is maintained as threshold and the system logs out for individual school in the event of over enrollment. In order to realize the above goals secondary education is divided into two stages-junior secondary one, two and three (JSI-JSIII) and senior secondary one to three (SSI-SSIII) (Abreu 2012). The junior secondary is responsible for equipping students with prevocational and academic skills. After completing JSS the students should be streamed into secondary, technical schools, out-of school vocational training centre, and apprenticeship scheme. Unfortunately there is now a growing culture of dropping out of school especially among secondary school students. After completing the JSS some of the students who ought to be enrolled into SSSI drop out of school only to re-appear for senior secondary school examination during SSSIII. Some of them transfer to another school to enroll in SSSIII without passing through the curriculum of SSI and SSII.

#### **Staff records and school administration**

The State ministry of education is the ministry directly responsible for all matter concerning education at the state level. While the federal ministry of education shares similar functions as the federal ministry with some exception. The management and supervision of secondary education in Nigeria is done by state ministry of education and its school's board in various state. The school boards are responsible for the management of primary and secondary schools in the state. The National Policy on Education (FRN, 2014) defines the functions of the board as:

- ☐ Selection, recruitment and appointment of teachers
- ☐ Posting, transfer and discipline of teachers
- ☐ Transmission of information in respect to curriculum
- ☐ Enrolment
- ☐ Quality of educational facilities
- ☐ Supervision of schools.

The manual processes involved in all this roles of the school administration could be handled using e-records. Staff transfers, staff files, postings, transmission of curricular, instructional facility information are expected to be captured through e-records for the purpose of speed and quick dispatch of duties (Osakwe, 2011). Technology has become essential in the management of schools and other organizations. For the human resources management in particular, HR technology is used to attract, hire, retain and maintain talent, support workforce administration, and optimize workforce management. The goal from

automating the following functions is to help managers work faster and more efficiently. HR technology is used by managers, employees, HR professionals, IT and operations departments all in different ways to improve the way school organization is run (Jaledzel, 2017).

Implementing HR technology within an organization enables managers to gather, collect, and deliver information, as well as communicate with employees more easily and efficiently. Automating certain business processes can greatly reduce the amount of administrative work and allow managers to focus more of their time and energy on managing their workforce. Human resources technology also provides school managers with the necessary decision making tools to allow them to make more effective HR-related decisions. Achieving a strong relationship between HR and technology can help companies achieve the following key objectives. Overall, HR technology provides schools administrators with decision making tools to help manage costs and enables them to reduce the time spent on administrative and legal compliance work, while maintaining an efficient and effective workforce to deliver quality service (Bown, 2007).

### **Students' results and certificates**

Educational technology has demonstrated a significant positive effect on achievement. Positive effects have been found for all major subject areas, in preschool through higher education, and for both regular education and special needs students. Evidence suggests that interactive video is especially effective when the skills and concepts to be learned have a visual component and when the software incorporates a research-based instructional design. Use of online telecommunications for collaboration across schools in different geographic locations has also been shown to improve academic skills and quicken admission process. E-records ensure that students' results and certificates are transmitted online and in real time (Langemd, 2002). Bown (2007) revealed that technology is being integrated into education, its use for teaching and learning still remains a challenge. Despite the fact that many schools today are privileged to have ready access to technology, trained teachers, and a favourable policy environment, the use of technology in the classroom is still low. Some attribute low levels of technology use in education to the pedagogical beliefs of teachers. With that said, the potential of technology to enhance learning cannot be overemphasized. The use of technology is something that started a long time ago for students with special needs. For example, brail machines have been utilized for the visually impaired. In addition, special needs programs that help children with autism use technology to enhance learning. By integrating technology into education, educators aim to engender pedagogical change and address fundamental issues that affect learners with special needs. Technology can therefore be seen as both a tool and a catalyst for change (Khdega, 2013).

### **Methodology**

The research design adopted for this study was correlational design. The population of the study consist of 274 and 548 administrative staff in public secondary schools in Rivers State (RSPPSB, 2019). A sample size of 391 following stratified sampling technique a in which 17 respondents were chosen from each of the 23 local government areas in Rivers State. Out of the 391 copies of questionnaires distributed, 350 or 92% were duly

completed and returned. The study therefore based its analysis on the returned copies of questionnaire. Two sets of questionnaires were distributed to the two sets of respondents (principals and administrative staff of public secondary schools in Rivers State). The questionnaire was titled: 'Use of E-records and Secondary School Administration in Public Secondary Schools in Rivers State'. The instrument was coded with modified four point Likert Scale of Strongly Agree (SA) -4 points Agree (A) – 3 points, Disagree (D) -2 points and Strongly Disagree (SD)- 1 point with the total number of twenty-four(24) items in the questionnaire.

Fifteen for teachers and fifteen for proprietors to ensure face and content validity of the instrument, the first copy of the questionnaire was given out the supervisor for thorough checking and mistakes were corrected. The reliability of the instrument was done using Crombach Alpha (SPSS) version 23) and obtained .911>.71. It was obtained which showed that the instrument was highly reliable. The method of analysis used for the study was Pearson Product Moment Correlation Coefficient to test the hypotheses at .05 significance level while mean and standard deviation was used in the research questions at 2.5 mean benchmark.

## Results

### Research question 1

How does use of e-records in students' enrollments relate to school administration in public secondary schools in Rivers State?

Table 1: Answer to research question 1

S / N	I t e m s	N=350	M e a n	Std. Deviation	R e m a r k
	My students are enrolled via internet		2.229	1.24046	Disagreed
	Admission process is monitored online		1.897	1.1853	Disagreed
	My students are issued serial numbers as they are admitted automatically		2.0257	1.19786	Disagreed
	My students do have a maintained electronic records		1.4457	.67384	Disagreed
	<b>G r a n d T o t a l</b>		<b>2.03</b>		

Table 1 above shows in item 1 mean score of 2.229 and SD 1.24046 which shows that the respondents disagreed that they students are enrolled via internet. In item 2 mean score of 1.897 and SD 1.1853 shows that the respondents disagreed that admission process is monitored online. In item 3 mean score of 2.0257 and SD 1.19786 which shows that the respondents disagreed that they students are issued serial numbers as they are admitted automatically. In item 4 mean score of 1.4457 and SD .67384 equally proved that the students do have a maintained electronic records. Thus, grand mean score of 2.03<2.5 which proves that the respondents disagreed on the use of e-records in students' enrollments relate to school administration in public secondary schools in Rivers State.

### Research 2

How does use of e-records in students' results and certificates relate to school administration in public secondary schools in Rivers State?

**Table 2: Answer to research question 2**

S / N I T E M S	N=350	M e a n	Std. Deviation	R e m a r k
I maintain online school report cards		1 . 8 9 4 3	1.18381	D i s a g r e e d
My students generate their results online		1 . 3 4 5 7	.70846	D i s a g r e e d
My students can download their school records in their new schools		2 . 4 6 2 9	1.24046	D i s a g r e e d
My students get their transcripts and academic records online.		1 . 9 3 1 4	1.14351	D i s a g r e e d
<b>G r a n d M e a n</b>		<b>1 . 8 3</b>		

Table 2 shows in item 5 mean score of 1.8943 and SD 1.18381 showing that the respondents disagreed that they maintain online school report cards. In item 6 mean score of 1.3457 and SD .70846 showing that the respondents disagreed that their students generate their results online. In item 7 mean score 2.4629 and SD 1.24046 implying that the respondent disagreed that students download their school records in their new schools. In item 8 mean score of 1.9314 and SD 1.14351 showing that the respondents disagreed that students get their transcripts and academic records online. Thus, the grand mean of  $1.83 < 2.5$  shows that the respondents disagreed on use of e-records in students' results and certificates relate to school administration in public secondary schools in Rivers State.

### Research question 3

How does use of e-records in Staff records relate to school administration in public secondary schools in Rivers State?

**Table 3: Answer to research question 3**

S / N I T E M S	N=350	Mean	Std. Deviation	R e m a r k
My staff file have online duplicate		1.9286	1.22908	Disagreed
My staff records of nominal roll and salaries matters are in electronic copy		1.1743	.37990	Disagreed
I send e-mails to my staff instead of hardcopy memo		2.0257	1.19786	Disagreed
My staff issues have report history online		1.9286	1.22908	Disagreed
<b>G r a n d M e a n</b>		<b>1 . 7 6</b>		

Table 3 shows in item 9 mean score of 1.9286 and SD 1.22908 which shows that the respondents disagreed that staff file have online duplicate. In item 10 mean score of 1.1743 and SD .37990 shows that the respondents disagreed that staff records of nominal roll and salaries matters are in electronic copy t. In item 11 mean score of 2.0257 and SD 1.19786 shows that the respondents disagreed that staff are disengaged send e-mails to my staff instead of hardcopy memo. Similarly, in item 26 mean score of 1.9286 and SD 1.22908 shows that the respondents disagreed that staff issues have report history online. Thus, the grand mean of  $1.76 < 2.5$  indicate that the respondents disagreed use of e-records in Staff records relate to school administration in public secondary schools in Rivers State.



**Test of hypotheses**

**Ho1:** There is no significant relationship between use of e-records in students' enrollments and school administration in public secondary schools in Rivers State

**Table 4: Correlation between use of e-records in students' enrollments and school administration in public secondary schools in Rivers State**

C o r r e l a t i o n s			S c h o o l A d m i n i s t r a t i o n			
use of e-records in students' enrollments	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N

**\*\* . Correlation is significant at the 0.01 level (2-tailed).**

Table 4 above shows a correlate value of .837, N-value of 350 and p-value of .002 < than .05 shows that there is a significant relationship between use of e-records in students' enrollments and school administration in public secondary schools in Rivers State.

**Ho2:** There is no significant relationship between use of e-records in students' results and certificates and school administration in public secondary schools in Rivers State.

**Table 5: Correlation between use of e-records in students' results and certificates and school administration**

C o r r e l a t i o n s			S c h o o l A d m i n i s t r a t i o n			
use of e-records in students' results and certificates	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N
	Correlation Coefficient	Sig. (2-tailed)	N	Correlation Coefficient	Sig. (2-tailed)	N

**\*\* . Correlation is significant at the 0.01 level (2-tailed).**

Table 5 above shows there correlate value of .680, N-value of 350, p-value of .000 < .05 shows that there is a significant relationship between use of e-records in students' results and certificates and school administration in public secondary schools in Rivers State.

**Ho3:** There is no significant relationship between use of e-records in staff records and school administration in public secondary schools in Rivers State

**Table 6: Correlation of between use of e-records in staff records and school administration**

C o r r e l a t i o n s		S c h o o l A d m i n i s t r a t i o n			
Use of E-Records In Staff Records	Correlation Coefficient	1.000	-.180**	.791**	.532**
	Sig. (2-tailed)	.	.001	.000	.000
	N	350	350	350	350
	Correlation Coefficient	-.180**	1.000	-.099	.062
	Sig. (2-tailed)	.001	.	.064	.251
	N	350	350	350	350
	Correlation Coefficient	.791**	-.099	1.000	.791**
	Sig. (2-tailed)	.000	.001	.	.000
	N	350	350	350	350
	Correlation Coefficient	.532**	.062	.791**	1.000
	Sig. (2-tailed)	.000	.001	.000	.
	N	350	350	350	350

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 6 above shows correlate value of .989, n-value of 350, p-value of .001<.05 which prove that there is a significant relationship between use of e-records in staff records and school administration in public secondary schools in Rivers State.

### Summary of findings

The findings of the study are hereunder itemized:

1. There a significant relationship between use of e-records in students' enrollments and school administration in public secondary schools in Rivers State.
2. There a significant relationship between use of e-records in students' results and certificates and school administration in public secondary schools in Rivers State.
3. There is a significant relationship between use of e-records in staff records and school administration in public secondary schools in Rivers State.

### Discussion of findings

The findings of the study are hereunder discussed:

#### Use of e-records in students' enrollments and school administration

The findings of the study showed that there is a significant relationship between use of e-records in students' enrollment and school administration in Rivers State.

The position of the respondents is supported by Abreu (2012) stating that E-records ensure that the required number of students of 40 -1 teacher is maintained as threshold and the system logs out for individual school in the event of over enrollment. In order to realize the above goals secondary education is divided into two stages-junior secondary one, two and three (JSI-JSIII) and senior secondary one to three (SSI-SSIII).

**Use of e-records in students' results and certificates and school administration**

The findings of the study showed that there is significant relationship between use of e-records in students' result and certificates and school administration. The position of the respondents was contrasted by Bown (2007) revealing that technology is being integrated into education, its use for teaching and learning still remains a challenge. Despite the fact that many schools today are privileged to have ready access to technology, trained teachers, and a favourable policy environment, the use of technology in the students result preparation is low. Some attribute low levels of technology use in education to the pedagogical beliefs of teachers.

He went further to state that with that said, the potential of technology to enhance learning cannot be overemphasized. The use of technology is something that started a long time ago for students with special needs. For example, brail machines have been utilized for the visually impaired. In addition, special needs programs that help children with autism use technology to enhance learning.

**Use of e-records in staff records and school administration**

The findings of the study equally showed that use of e-records in staff records is significantly related to school administration. The stance of Osakwe (2011) buttressed the position of the respondents, stating that the manual processes involved in all this roles of the school administration could be handled using e-records. Staff transfers, staff files, postings, transmission of curricular, instructional facility information are expected to be captured through e-records for the purpose of speed and quick dispatch of duties (Osakwe, 2011). Technology has become essential in the management of schools and other organizations. For the human resources management in particular, HR technology is used to attract, hire, retain and maintain talent, support workforce administration, and optimize workforce management. The goal from automating the following functions is to help managers work faster and more efficiently. HR technology is used by managers, employees, HR professionals, IT and operations departments all in different ways to improve the way school organization is run (Jaledzel, 2017).

**Conclusion**

The purpose of the study is to find out how use of e-records aids secondary school administration in Rivers State. The findings of the study have shown that e-records is required in students' enrollment to avoid school over population and other administrative hitches. It equally reached that students results and certificates when done online can enhance school administration process and improve students' admission process in a new school. The study also found that staff records when done electronically can enhance the resolution of staff issues and foster competence and speed amongst staff members.

**Recommendations**

Based on the findings, the following recommendations have been made:

1. School administrators should deploy internet facilities for e-record system of school processes.
2. Management should train staff on the use of computer facilities.

3. Government should legislate on the need for online school administration to allow for improved administration in secondary schools in Rivers State.

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