International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

Awareness and Readiness to Embrace WAEC's Transmission from Paper-Based to Computer-Based Test in 2026 among Secondary School Students in Rural Cross River State, Nigeria

[1]Adomi Kwita Ojong, [2]Arong Okon Obio, [3]Ehihia Augustina Orieoma, [4]Markson Enobong, & [5]Isabel Obi Abang

[1,2,3,4&5]Department of Mass Communication, University of Calabar, Calabar

https://orcid.org/0009-0001-1358-8363
https://orcid.org/0009-0009-8758-6262
https://orcid.org/0009-0001-3036-3254
https://orcid.org/0009-0009-0544-0940
https://orcid.org/0009-0000-4836-5496

***Corresponding Authors:** kwitaadomi@unical.edu.ng, okonarong96@gmail.com

ABSTRACT

Background: ICT is seriously reshaping the Nigeria education system with WAEC set to adopt it in the conduct of the 2026 examination 73 years after. While this is considered apt, the level of awareness and preparation of both schools and students to the adoption of this innovation remains s source of worry.
Objectives: The study critically examine how aware and prepared secondary schools and students are in the adoption of the CBT innovation by WAEC in 2026 in view of the fact that adequate preparation is key in the adoption of any innovation.
Method: The study adopts mixed method survey designs making use of both quantitative and qualitative data. Hence, data were collected through structured questionnaires and interviews, and analysed using descriptive statistics and thematic analysis. The sample size for the quantitative data was 620 derived using Krecijie and Morgan (1972) formula while that of qualitative data was selected purposively from the sampled schools in rural Cross River State.
Results: The findings indicate that while the WAEC CBT innovation in spite of the benefits it holds, will pose a challenge to schools and students in rural Cross River State. This is informed by the poor state of infrastructure and lack of ICT skills among this category of students.
Conclusion: The study concludes that while schools cannot proscribe to the use of ICT, especially in the 21st century, adequate awareness and preparation should be created by benefactors to allow for the seamless adoption of such an innovation.
Unique Contribution: This study highlights the processes involved in the diffusion of any innovation in a social system.
Key Recommendation: The study recommends improvement of digital literacy of students, improved infrastructure in rural schools, and the creation of adequate awareness around any new innovation especially among vulnerable groups.

Keywords: Computer Based Test (CBT), Information and Communication Technology (ICT), ICT Literacy, Readiness, Diffusion of Innovation

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

INTRODUCTION

The West African Examination Council (WAEC), 73 years into its existence, introduces Computer-Based Test (CBT) in the conduct of its examination. This buttresses the extent to which the Nigerian educational system has shown readiness to embrace digitalization and digitization especially in the face of massive breakthrough in information communication technology (ICT).

The introduction of the Computer-Based Test (CBT) or Computer-Based Examination (CBE) as a method of administering examinations in Nigeria' s school system has brought a new era where ICT literacy becomes a relevant skill for effectively participating in such examinations (Abubakar & Adebayo, 2014; Adepoju, 2016). This by implication means that, schools need to be equiped with modern ICT facilities to afford learners the opportunity to acquire the relevant ICT skills to face such examination requiring the use of CBT. Regrettably, this reality appears to be a mirage to students and schools located in rural communities like rural Cross River State.

The Computer Based Test or Examination (CBT or CBE), is conducted with ICT facilities like computers, internet connectivity, power supply, conducive ICT learning environment as well as competent ICT instructors. Take for instance, among the facilities expected to be available for the smooth conduct of the examination includes Minimum of 150 functional Computer Systems/Laptops with 10% (i.e. 15) backups with the following minimum specifications: Intel Based processor, Dual core Celeron/Pentium, Ram: 4GB Ram, HD: SSD Preferred, 32GB minimum, Windows 10, 10/100MB RJ45 Network Port, Browser (Latest versions of Google Chrome, Mozilla Firefox, or Microsoft Edge) s well as minimum 15 inches flat screen computer monitor for desktop or 17 inches for laptop The computer systems must be connected to a robust computer server with capacity to carry a minimum of 150 systems concurrently. Provision of up-to-date Antivirus and all the systems must be virus free. The big question then is, what is the level of WAEC preparation to see that these facilities are made available to all schools including those in the rural communities like Cross River State.?

According to Garad and Al-Ansi (2021), even though most countries are faced with numerous difficulties in relation to ICT-based education, it is more common in underdeveloped nations like Nigeria which is still grappling with so many challenges like poor electricity, expensive infrastructure, managing and organizing lessons, upkeep of gear and software, a lack of experience, and occasionally plagiarism. Abubakar (2022) observes that, adoption of new ideas, even when it shows clear advantages, is a difficult process. Much of the studies carried out on this area have only focused on JAMB and Post-UTME and others have looked at other states leaving out Cross River State. It is against this backdrop that this study seeks to close the gap by critically examine the level of awareness and preparation of students and schools in rural Cross River State in the adoption of the CBT innovation by WAEC for 2026 examination.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

RESEARCH QUESTIONS

Efforts were made to answer the following research questions:

1. To what extent are secondary school students in rural Cross River State aware of the transitioning process of WAEC from Paper-Based test to Computer-Based Test by 2026?
2. What are the levels of preparedness of secondary schools in rural Cross River State in the adoption of WAEC CBT examination by 2026?
3. What are some of the perceived challenges to the adoption WAEC CBT innovation among secondary schools in rural Cross River State?

REVIEW OF RELATED LITERATURE

Diffusion of Innovation

The introduction of Computer-Based Test (CBT) for the conduct of WAEC, NECO, and NABTEB in Nigeria is seen as a new innovation with reference to the above examination bodies. The task before the innovators therefore, is to see how this innovation is properly diffused and consequently adopted by the target population. Abubakar (2022) maintains that, diffusion research centers on the conditions which increase or decrease the likelihood that a new idea, product, or practice will be adopted by members of a given culture. Hence, studying how innovation occurs, Rogers (1995) argues that it consists of four stages: invention, diffusion (or communication) through the social system, time, and consequences. Innovation as a social construction is created in interaction of awareness and the need for innovation (utility, acceptability, compatibility of innovation, the need to overcome the existing and well-known), openness and focus on creating a system of social innovation, creative personalities. Anyway, innovation is the result of synthesis of innovative individuals-talented and brilliant personalities, their physical and mental characteristics, as well as social conditions and scientific environment and a position within the wider scientific community (Janković, 2005)

While diffusion is the process of innovation of new idea or practice that need to be communicated to individual, or communities for adoption. This kind of communication means moving from a focus of informing and persuading people to change their behaviour or attitudes, to a focus on facilitating exchanges between different stakeholders in introducing new ideas or projects to either individuals or communities at large (Abubakar, 2022). This could lead to a common development initiative to experiment with possible participation of communities or individuals to proffer solution and identify what is needed to support the new idea or initiative in terms of partnerships, knowledge and material conditions.

Diffusion of innovation such as the migration from paper-pen based examination to computer-based test (CBT) by WAEC in 2026, demands that adequate awareness be created around this innovation considering the peculiarity of the Nigeria society where there is a very serious technological gap and lack of ICT literacy among students especially those drawn from the rural extraction. According to Kennedy, Asuabanga and Obot (2024), awareness means being conscious of a phenomenon, knowledge transfer to facts, information and skills about the phenomenon which are acquired through experience or education. Thus the key difference as De

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

Vries and Mudde (2009) cited in Kennedy, Asuabanga and, Obot (2024), is that while knowledge is associated with deep understanding and familiarity with a subject, awareness does not imply a deep understanding. Considering the disparity in awareness level, Ubulom and Wokocha (2012), while considering ICT adoption between urban schools and rural schools observed that urban schools are more likely to be better equipped with ICT facilities and ICT teachers than rural schools. The authors had in a similar study found that the level of preparedness or readiness and acceptability regarding computer-based examinations was higher in students of urban schools than of rural schools.

Computer Based Test is said to have been introduced in the conduct of examination in Nigeria by the JAMB with the aim to correct so many perceived abnormalities paramount among which is examination malpractice. As Okoye and Duru (2020) posit, from the inception of the Board to the year 2011, paper and pencil tests (PPT) formed the mode adopted by the board in the conduct of the UTME. It was in 2012, that two forms of computer based examinations were introduced for UTME candidates. These were the computer Based Tests (CBT) and the Dual Based Tests (DBT), (Nkwocha, Akanwa & Nkwocha, 2015). The Paper and pencil test is the traditional mode of conducting examinations in the Nigerian education system including WAEC, NECO, and NABTEB. According to Okoye and Duru (2020), this involves students answering questions presented to them using paper and pencil. Paper-based testing (PBT) is gradually being phased out globally because of its limitations, including widespread malpractices during the examinations (Onyibe, Nwachiikpor & Abdulhakim, 2015).

Nonetheless, Computer Based Testing (CBT) is defined as a form of Information Communication Technology (ICT) for test administration or assessment whereby examinee responses are electronically coded, assessed and recorded, with the prompt publication of results (Okoye, 2019). Suleiman and Nachandiya (2018) defines Computer based testing as tests and assessments conducted through the use of organized systems on computers. Computer based tests can also be referred to as any form of assessment in which the computer is an integral part of question paper delivery, responses storage, marking of responses or reporting of results from a test or exercise (Olutunu, 2018). Therefore, computer based testing is the process of administering and answering examination questions through the use of computers.

The use of CBT is however without some percieved setbacks. Hinostroza (2018) cited in Ohei (2023), posits that majority of academic institutions in developing countries face a number of obstacles when implementing ICT tools and technologies in learning process, including low computer literacy, ill-equipped classrooms, lack of electricity in most rural schools, expensive and slow internet connections, and lack of student- accessible to e-learning resources. This submission aligns with that of Murgatrot (2020), who holds that, a number of flaws in the use of ICT tools and technologies in learning include the inadequate infrastructure for online education, the lack of expertize among teachers, the knowledge gap, the complexity of the home environment, and more.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

EMPIRICAL REVIEW

A lot of empirical studies have been carried out to establish the role of ICT in education especially in an era where ICT is seriously reshaping the education sector of Nigeria. Few of these studies are reviewed to see areas of alignment.

Ukwueze and Ogochukwu (2021) conducted a study on "ICT literacy and Readiness for Computer Based Test among Public Secondary Schools in Anambra State." The study adopted a mixed method of quantitative (survey) and qualitative (Focus Group Discussion) research designs. The sample size for the survey aspect was determined using Krecijie & Morgan (1972) formula which states that when a study population is up to 100,000 and less than 500,000, then the sample size becomes 659 (at 5% error margin and 99% confidence level) The study found out that students who participate in CBT acquire the ICT skills required for them only after they have left school. A situation they described as unhealthy as early preparation is more likely to enhance performance better. The gap is that while the study focused in Anambra State, the current study looks at students and schools readiness for WAEC CBT innovation in rural Cross River State.

Also, Eze and Akubugwo (2016) evaluated the integration of computer/ICT education by teachers in junior secondary schools in the three educational zones in Abia State. Research questions were formulated based on the comprehensiveness and adequacy of the curriculum, availability of computer/ICT facilities, and qualified and proficient teachers for effective teaching and learning. Forty-five out of the108 junior secondary schools offering computer/ICT education were selected via simple random sampling technique. A total of 69 teachers were involved in the study. The data collected was analysed with percentage and mean score. Findings showed that computer education curriculum was adequate but the main objective of introducing this programme in the junior secondary schools had not been fully achieved as a result of lack of computer/ICT laboratory and incompetent teachers that resulted to poor teaching and learning method. The study in underscoring the challenges of ICT innovation in selected schools in Abia, failed to cover other states. This is the gap the current study seeks to close.

Ubulom and Wokocha (2012) studied readiness and acceptability of computer-based test (CBT) for Post University Matriculation Examinations (PUME) among urban and rural senior secondary school students in Rivers State. The research design was descriptive survey research. The sample size for the study comprised 600 final year students drawn from 60 secondary schools in 12 LGAs from the 3 senatorial zones of Rivers State, using purposive sampling to take care of location variables. A structured questionnaire (with reliability of .88) was used to collect data and a total number of 450 copies of the questionnaire were retrieved, which were analysed using mean, standard deviation and independent t-test. The results indicated that the level of readiness and acceptability of CBT was moderate on the part of students from urban areas of the state but their counterparts in the rural areas were lagging behind. Again, the study only focused on secondary schools in Rivers State. This is the gap the current study seeks to close by looking at schools and students in rural Cross River State in the adoption WAEC CBT innovation.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

Fehintola (2018) examined the challenges of CBT among students in Nigerian educational system. The study made use of descriptive research design of survey type and the population of interest was the senior secondary school students that had experienced CBT. The sample was made up of 330 senior secondary school students that had experienced CBT assessment. The findings showed that students took CBT assessment amidst lot of challenges such as inadequate facilities, poor power supply, lack of computer technical know-how, problems of far distance and insecurity of examination materials. The study concluded that CBT, despite its unique advantages, is still confronted by a lot of challenges. The study focused on challenges of CBT while the current study looks at students and schools readiness to adopt the CBT innovation for 2026 WAEC in rural Cross River State.

THEORETICAL FRAMEWORK

Diffusion of Innovation Theory

The Diffusion of Innovation theory was popularized by Everett Rogers, a professor of rural sociology in his 1962 book "Diffusion of Innovations." He describes diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system. Summarising the essentials of the theory, McCarthy (1998) writes: It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behaviour, or product. Adoption means that a person does something differently than what they had previously (i.e., purchase or use a new product, acquire and perform a new behaviour, etc.). The key to adoption is that the person must perceive the idea, behaviour, or product as new or innovative. It is through this that diffusion is possible.

Computer-Based Test (CBT) is a relatively a new innovation especially among students and schools in rural Nigeria. In fact, its first general application by any of the public examination bodies administering exams for secondary school students/ leavers in Nigeria (i.e. WAEC, NECO, JAMB, NABTEB) was in 2015 when JAMB made it the standard examination mode for its yearly UTME (JAMB, 2015; Joshua & Ikiroma, 2016) cited in Ukwueze and Ogochukwu (2021). Being new, notwithstanding, it may unarguably, still be undergoing its adoption (diffusion) process among Nigerians, and this adoption process has, as one of its most vital element, the acquisition of the requisite ICT skills which culminates into students and schools readiness. To ascertain that beneficiaries are ready to adopt this innovation is to ensure that all the stages of adoption outlined by Rogers are strictly adhered to including every other intervening variables domicile in a social system. This informs the relevance of this theory in underpinning the study.

METHODOLOGY

The study adopted qualitative and quantitative (survey) research designs making use of both interview guide and questionnaire respectively. The questionnaire was administered to students of examination classes drawn from the three senatorial districts of Cross River State. Two (2) public schools were drawn from each of the three districts particularly those located at the rural

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

settings making a total of six sampled public schools. The multistage sampling technique was deployed to select respondents in stages. Hence, the sample size for the quantitative survey was determined with reference to Krecjie & Morgan (1972) formula, which states that, in a study of a population of about 100, 000 and less than 500, 000, the sample size becomes 659 (at 5% error margin and 99% confidence level). Similarly, the qualitative interview guide was administered to sampled teachers and heads of schools drawn purposively from the three senatorial districts of the state in rural public secondary schools. The data gotten from the interview were transcribed verbatim and analyzed using thematic analysis, a method suitable for identifying, analyzing and reporting patterns (themes) within qualitative data. The analysis process began with familiarization, during which the transcripts were read multiple times to immersed the researchers in the data and to gain a deep understanding of the content while significant statements and phrases were then coded to identify recurring concepts and patterns pertinent to the research objectives and questions. Dichotomous and non-Likertscaling methods were used for section 'A' while Likert attitude scale was used for sections 'B'.

RESULTS

Section A: Respondents Awareness of Computer Based Test

Table 1: Awareness of CBT

RESPONSE	FREQUENCY	PERCENTAGE
Yes	589	95%
No	31	5%
Neutral	-	-
Total	620	100%

Source: Field Survey, 2025

The data in table one sought to find out if respondents have heard of the CBT innovation and results show a total of 589 respondents representing 95% having head of CBT. This implies that CBT innovation is not entirely alien to the respondents

Table 2: Students awareness of introduction of CBT for 2026 Exams

RESPONSE	FREQUENCY	PERCENTAGE
Yes	534	86%
No	76	12.3%
Neutral	10	1.7%
Total	620	100%

Source: Field Survey 2025

The data in table two reveals the level awareness of respondents on the planned policy by WAEC to introduce CBT for 2026 exams. Similarly, a total of 534 representing 86% of the total respondents say there aware of the planned policy by WAEC 76 representing 12.3% yet to come to terms with the planned policy.

Table 3: Students source of information about CBT

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

RESPONSE	FREQUENCY	PERCENTAGE
Through my siblings and parents	66	10.64%
Through my teachers	466	75.16%
Through social media	88	14.20%
Neutral	-	-
Total	620	100

Source: Field Survey 2025

The above table sought to underscore how respondents got to know about the planned policy by the WAEC to introduce CBT for 2026 exams. 466 representing 75.16% of the total respondents said they heard it from their teachers while 88 representing 14.20% and 66 representing 10.64% said they heard it from their siblings and parents while others heard it on social media. Nonetheless, the analysis shows that respondents are aware of the policy.

Table 4: Knowledge of examinations written through CBT

RESPONSE	**FREQUENCY**	**PERCENTAGE**
WAEC	-	-
NECO	-	-
JAMB	620	100%
FSLC	-	-
Total	620	100%

Source: Field Survey 2025

Table 4 sought to know which of the exams respondents are aware that is being conducted with CBT. And 620 of the total respondents representing 100% mentioned Jamb as the only exams they know is administered by CBT.

SECTION B: Respondents and Schools Readiness to Adopt CBT

Table 5: Rural secondary schools in Cross River State are well equiped for CBT

RESPONSE	**FREQUENCY**	**PERCENTAGE**
Strongly Agree (SA)	2	0.32%
Agree (A)	4	0.64%
Disagree (D)	20	3.22%
Strongly Disagree (SD)	594	95.82%
Total	620	100%

Source: Field Survey, 2025

The data on the table above show 594, representing 95.82% and 3.22% disagreed and strongly disagreed to the assertion that rural secondary schools in Cross River State are well equipped for CBT. The implication is that respondent's schools are not equipped enough to adopt CBT innovation.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

Table 6: Students in rural secondary schools in Cross River State have the needed ICT skills to adopt WAEC CBT by 2026

RESPONSE	FREQUENCY	PERCENTAGE
Strongly Agree (SA)	8	1.29%
Agree (A)	12	1.94%
Disagree (D)	12	1.94%
Strongly Disagree (SD)	588	94.83%
Total	620	100%

Source: Field Survey, 2025

The data in the above table show 94.83% of the total respondents strongly disagreed that students in rural secondary schools in Cross River State have the needed ICT skills to adopt WAEC CBT in 2026. The import is that, these category of students lack ICT skills for WAEC CBT innovation.

Table 7: My school has competent ICT instructors with state of the art computer laboratory for the adoption of WAEC CBT by 2026

RESPONSE	FREQUENCY	PERCENTAGE
Strongly Agree (SA)	3	0.49%
Agree (A)	2	0.32%
Disagree (D)	60	9.68%
Strongly Disagree (SD)	555	59.51%
Total	620	100%

Source: Field Survey 2025

The data in the above table suggests that respondents' schools lack competent ICT instructors as well as state of the act computer laboratories. This is evident where 555 responses, representing 59.51% and 60 responses, representing 9.68% disagreed and strongly disagreed that respondents' schools are equipped to adopt this innovation.

Table 8: My school has been doing exams with CBT and can adopt WAEC CBT by 2026

RESPONSE	FREQUENCY	PERCENTAGE
Strongly Agree (SA)	-	-
Agree (A)	5	0.80%
Disagree (D)	15	2.42%
Strongly Disagree (SD)	600	96.78%
Total	620	100%

Source: Field Survey 2025

In the above table, 96.78% of the total respondents strongly disagreed that their schools have been doing exams with CBT. The implication is that respondent's schools have not been doing exams with CBT.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

DATA PRESENTATION FROM THE INTERVIEW GUIDE

Respondents were asked open-ended questions on the following topics:

1. What is the level of awareness of both schools and students about the CBT innovation by WAEC?
2. To what extent do you consider rural schools ready for the adoption of CBT for WAEC?
3. What challenges do you perceive that may come in between the adoption of this innovation?

What is the level of Awareness of Students and Schools on the Adoption of CBT by WAEC.?

The interviewees maitained that the policy statement by WAEC through the ministry of education was duly communicated to them and same conveyed to students. Four respondents information flow in this era was faster as some students even got to know of the policy before them with the help of the social media. This buttresses Rogers 1962 claims that, for a new innovation to diffuse through a social system, it must pass through awareness stage. But awareness does not translate into adoption.

What is the level of Readiness of Students and Schools to Adopt WAEC CBT Innovation for 2026 Examination.?

On the readiness level of both schools and students from the rural extraction, respondents separately affirmed that, no rural secondary school in Cross River State is ready for the WAEC CBT innovation in spite of it's numerous advantages. Respondents mentioned lack of computer laboratories, competent ICT instructors, electricity supply as well as good internet connectivity in rural secondary schools as evidence that no rural secondary school was ready for the innovation. According to one respondent, "our students have only read about computer but some have never handle of it let alone operating it. Parents cannot even afford school fees let alone a set of computer for their children to study at home. So, when one talks of readiness, you only consider not all, some schools in the urban centres.

What are some of the Perceived Challenges to the Adoption of the WAEC CBT Innovation by schools and students in Rural Cross River State.?

The interviewees unanimously held that the WAEC CBT innovation will be challenging to students and schools in rural Cross River State for many reasons to include but not limited to poor government attention to infrastructural development in rural schools. The interviwees also mentioned that, when computer studies was introduced in the school curriculum they had thought that government was ready to equiped schools but unfortunately no one single rural school in Cross River State was equipped with computer sets and electricity, good internet connectivity as well employment of competent ICT instructors, which are the basic drivers of such an innovation like this. They however submitted that, the absence of all of these constitute not only challenges but barriers to the smooth adoption of this innovation.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

DISCUSSIONS

Research Question One: What is the Level of Schools and Students Awareness on the Adoption of WAEC CBT.?

This research question sought to know the level of both schools and students' awareness on the adoption of CBT by WAEC and other examination bodies. In table 1, 95% of respondents have heard about CBT. In table 2, 86% of the total respondents said they were aware of the introduction of WAEC CBT innovation while in table 3, 75.16% of the respondents said they heard it from their teachers and in table 4, 100% of the respondents said that the only examinations that adopt CBT are JAMB and Post-UTME. This implies that, the students are aware of the CBT innovation especially in such examinations like JAMB and Post-UTME, which aligns with Rogers 1962 submission, of awareness stage in diffusion of innovation. This also agrees with the submissions by the interviewees that the news about the the WAEC CBT innovation has been adequately shared. This equally lends credence to Iyorza (2025) assertion that, the acceptance of new ideas can be transformed through creation of an atmosphere of participatory communication involving dialogue, cooperation, mutual respect and sharing of initiatives. The findings also add verve to Elihu Katz and Paul Lazarsfeld 1955 Multiple Step flow theory which advocates for information sharing in layers of human stratification.

Research Question Two: To what Extent are Students and Schools in Rural Cross River State Ready for the Adoption of WAEC CBT in 2026.?

The thrust of this research question was to firmly establish the extent to which schools and students legible for 2026 WAEC examination were ready to adopt CBT innovation. Results from the analyses in tables 5, shows 95.82% of the total respondents saying that their schools found in the rural area were not well equiped to adopt WAEC CBT. Also, in table 6, 94.83% identified lack of ICT facilities in their schools as evidence that they were not ready for the innovation while in table 7, 59.51% identified lack of ICT tutors in their schools as evidence of their poor preparation to the adoption of CBT while in table 8, 96.78% of the total respondents said their schools have not been doing CBT examination which would have helped them to be prepared for the WAEC CBT innovation. This resonates with JAMB's (2018) prescription that, for a CBT centre to be used for the UTME is required to have 250 functional desktop computer systems or laptops with a 10% (i.e. 25) backup that are connected to a local area network, with a minimum of 15 inch flat screen computer monitors for desktops or 17 inch for laptops. Also it is required that every CBT centre would have an alternative power supply with either a UPS/inverter, as well as a CCTV surveillance system, all situated in a well-furnished and air condition hall. This presupposes that there is always a human factor in the diffusion of any innovation which aligns with Iyorza's (2025) claim that, human factor is always at the centre of Nigeria's development challenges to include infrastructural gaps.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

Research Questions Three: What are Some of the Perceived Challenges to the Adoption of WAEC CBT Innovation Among Secondary schools and Students in rural Cross River State?

Interviwees identified several challenges to the seamless adoption of WAEC CBT innovation for the conduct of 2026 examination. These challenges also aligns with the ones respondents identified in tables 6, 7, and 8 with ranged from schools lacking ICT facilities, instructors, electricity supply, good internet connectivity, parents not being able to afford computer sets for their wards to schools not conducting examinations hitherto with CBT. What can be adduced from the submissions of the respondents and interviewees is that there is a percieved digital divide higher socioeconomic status people and people of lower socioeconomic status as Tichenor, Donohue, and Oliens (1970) Knowledge Gap theory cited in Ogbuoshi (2020) posits. This finding also agrees with Dhawan (2020) assertion that there are differences among students and learners in terms of their abilities and levels of confidence. Some individuals experience discomfort when utilizing the ICT tools provided for learning, resulting to increase in uncertainty and frustration. This is the gap that exist between rural schools and urban schools which can very well determine how ICT is embraced.

CONCLUSION

This study concludes that many students and schools in rural Cross River State appear not to be ready for the adoption of CBT for WAEC in spite of the seeming successes achieved by JAMB and Post-UTME. This conclusion arises from the finding that a significant proportion of the students and schools in this category were yet to acquire such skills in readiness for the WAEC CBT innovation. This situation may not be very healthy as early preparation is more likely to enhance performance of the adopters.

Furthermore, it is concluded that this study validates the argument of the Diffusion of Innovations theory especially via the finding that students of urban schools tended to be readier than their rural counterparts for computer-based tests. The theory posits that innovations (such as CBT) do not necessarily gain acceptance and use among all members of a society at the same time, but gradually diffuse among the population as influenced by some social factors. Among these factors is rural-urban divide which the theory recognizes as a predictor of familiarity and attitude to innovations – urban dwellers are more likely to get familiar with innovations earlier than rural dwellers (Rogers, 1962).

RECOMMENDATIONS

In line with the above conclusion drawn from the study, the following recommendations are put forward:

1. WAEC and other relevant bodies should visit schools in the rural communities to create maximum awareness on the adoption of CBT in the 2026 WAEC. This is important to help prepare the minds of students on the adoption of this innovation.
2. Government should mandate WAEC to visit schools especially those in vulnerable rural areas to ascertain their level of preparedness to the adoption of WAEC CBT innovation in 2026. WAEC. This is to help bridge the gap between urban and rural students.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

3. There should be equitable distribution of infrastructure between urban and rural schools. This is important to allow for seamless adoption of innovation in the education sector such as the CBT innovation introduced for the conduct of 2026 WAEC.

Ethical clearance
Ethical consent was sought and obtained from the participants used in this study. They were made to understand that the exercise was purely for academic purposes, and their participation was voluntary.

Acknowledgements
We acknowledge all the sampled schools, students and head of schools for assisting us with data collection. We equally appreciate all the students and head of schools in rural Cross River State sampled for the study.public secondary schools in rural Cross River State for their cooperation and support.

Sources of funding
The study was self funded.

Conflict of Interest
The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Authors Contributions.
Adomi, Kwita Ojong, Ph.D and Arong, Okon Obio, conceived the study, including the design while Ehihia Augustina Orieoma and Enobong Markson collated the data. Also, Arong Okon Obio and Isabel Abang handled the analysis and interpretation, while we all contributed in the initial manuscript. All authors have critically reviewed and approved the final draft, and are responsible for the content and similarity index of the manuscript.

Availability of data and materials
The datasets on which conclusions were made for this study are available on reasonable request.

Cite this article this way:

Adomi, K, O., Arong, O. O., Ehihia, A. O., Markson, E. U. & Isabel, O. A. (2025). Awareness and readiness to embrace WAECs transition from Paper-Based test to Computer-Based Test in 2026 among secondary school students in rural Cross River State. *International Journal of Sub-Saharan African Research, 3 (3), 336-351*

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

REFERENCES

Abubakar, S. (2022). The Role of Information and Interaction Processes and Participatory Rural Communication Approaches in Enhancing the Acceptance of Diffusion of Innovation Theory. *International Journal of Advanced Mass Communication and Journalism. 3(2) 19-27.*

Abubakar, A. S. & Adebayo, F. O. (2014). *Using computer based test method for the conduct of examination in Nigeria: Prospects, challenges and strategies. Mediterranean Journal of Social Sciences, 5(2). 47-55.*

Adebowale, O. F., Adewale, I. A. & Oyeniran, F. M. (2010). *Computer interest, approval and confidence of secondary school students in three selected local governments of Lagos State (Nigeria): Implications for global computerization. International Journal of Education and Development Using Information and Communication Technology, 2010, 6(1), 40 – 52.*

Adepoju, O. A. (2016). An evaluation of the challenges encountered in the first general computer based test in Nigeria. PJERE, 1(1), 1-13.

Al-Ansi, A. M. & Garad, A. (2021). ICT Based Learning During COVID-19 Outbreak: Advantages, Opportunities and Challenges. Gagasan Pendikan Indonesia 2(1), 10-26.

Ayanwale, M.A, Sanusi, I.T., Adelana, O.P., Aruleba, K., & Oyelere, S.S. (2022). Teachers' readiness and intention to teach artificial intelligence in schools. Computers and Education: Artificial Intelligence, 3, 1-11. DOI: 10.1016/j.caeai.2022.100099.

De Vries, O. & Mudde, P. I. (2008). Health communication: An introduction. Englewood Cliff, NJ: Prentice Hall.

Dhawan, A. (2020). *Online Learning: Panacea in the time of COVID-19 Crisis. Journal of Educational Technology Systems, 49(1), 5-22.*

Eze, R. O. & Akubugwo, I. G. (2016). Evaluation of the integration of computer/ICT education by teachers in junior secondary schools in Nigeria: A case study of Abia state. Information and Knowledge Management, 6(7), 14-21.

Fehintola, J. O. (2018). *Assessment of challenges of CBT among students in Nigerian educational system. KIU Journal of Social Sciences, 4(2), 14-149.*

Iyorza, S, O. (2025). Communicating Change and Development in Nigeria's Media Spaces: Bridging the Participatory Lacuna. University of Calabar Digital Press.

Joint Admission and Matriculation Board (2015). *Requirements foe CBT Centres. Retrived from www.jamb.gov.ng*

Joint Admission and Matriculation Board (2018). *Requirements foe CBT Centres. Retrived from www.jamb.gov.ng*

Joshua, M.T. & Ikiroma, B. (2016).Computer-based testing in Nigeria' s university entrants; matriculation examination: Readiness and acceptability of critical stakeholders.

Kennedy, W. G., Asuabanga, N. U., & Obot, E. J. (2024). Integration of Diffusion of Innovation Theory in TVET for Improving Student's Adoption of AI -Chatbots in Nigerian Universities. *World Journal of Innovation and Modern Technology. Vol. 8. No.5. pp 1-6*

Murgatrotd, S. (2020). COVID-19 and Online Learning. Alberta, Canada. Doi, 10.

International Journal of Sub-Saharan African Research (IJSSAR)
Vol. 3, Issue 3, pp. 336-351, September 2025, ISSN: 3043-4467 (Online), 3043-4459 (Print)
DOI:10.5281/zenodo.17253904

Nkwocha, P.C., Akanwa, U.N. & Nkwocha, N.C. (2015). *Challenges encountered using CBT by 2015 UTME candidates in Owerri zone one, Nigeria: Test validity implications. IOSR Journal of Research & Method in Education, 5 (5) 28 -35.*

Ohei, K. N. (2023). *Using ICT Tools and Technological Applications in the Era of the COVID-19 Pandemic to Facilitate Learning. Holistica Journal of Business and Public Administration, Vol.14, ISS, 2, 116-136.*

Okoye, F. O. & Duru, D. C. (2020). *Assessment of the Effectiveness of Computer Based Testing in the Conduct of the 2019 Joint Admissions and Matriculation Board Examination in Anambra State. National Journal of Educational Leadership (NJOEL) Vol. 5 No. 1, 2020 (ISSN: 2251-0303) 125.*

Okoye, F.O. (2019). *Challenges of 2018 computer based test JAMB examination for senior secondary school students' academic performance in Anambra state, Nigeria. European Journal of Education Studies, 6 (3) 266 – 277.*

Olutunu, D.F. (2018). *Impact of computer based test in Nigeria Tertiary Institutions: A theoretical view. International Journal for Innovative Technology Integration in Education, 2(1) 109 -116.*

Onyibe, C.O., Nwachi-Ikpor, J., Abdulhakim, A.A. (2015). *Computer based testing technique in Nigeria: Prospects and challenges. Journal of Information Engineering and Applications, 5 (10) 17-21.*

Rogers, E.M (1995). Diffusion of Innovations (5th Ed.). New York, NY: Free Press.

Rogers, D. (1962). Understanding diffusion of innovation. London: Pluto.

Suleiman, A. & Nachandiya, N. (2018). Computer based testing (CBT) system for GST exams in Adamawa state university. Asian Journal of Research in Computer Science, 2 (1) 1-11.

Ubulom, W. J. & Wokocha, K. (2012). *Readiness and acceptability of computer-based test (CBT) for postuniversity matriculation examinations (PUME) among urban and rural senior secondary school students in Rivers State. International Journal of Innovative Social & Science Education Research, 5(3), 51-60.*

Ukwueze, C. A., & Ogochukwu, U. N. (2021). ICT Literacy and Readiness for Computer Based Test Among Public Secondary Schools Students in Anambra State. New Media and Mass Communication. Vol.97.