

**IMPACT OF EFFECTIVE USAGE OF KWARA LEARN IN TEACHING PROFESSION AS AN EFFECTIVE MEASURE TO DUTIFUL OFFICERS IN KWARA STATE****BY****Eniola Keji Ola-Alani, Ph.D.: Department of Adult and Primary Education.  
University of Ilorin, [ola-alani.ek@unilorin.ng](mailto:ola-alani.ek@unilorin.ng)****Abstract**

*The influence of effectively using KwaraLearn in the teaching profession as a useful tool for Kwara state's obedient officials was the subject of the study. A descriptive survey research design was chosen for the study, and 120 teachers from 10 different primary schools in Ilorin Metropolis, Kwara State, were randomly selected as samples. Three research questions were posed and addressed. Frequency counts, means, and standard deviation were utilised to provide descriptive answers to the data from the administered questionnaire. The results of the data analysis showed that implementing Kwara Learn in schools was thought to have several advantages, including improving instruction quality, keeping teachers current on new information, and making teaching and learning engaging. Additionally, Kwara Learn improves instructors' instructional ability and offers helpful information and an effective way for teachers to manage their careers. Boost subject matter knowledge and comprehension. Among the difficulties teachers encounter are misinterpreting materials, which frequently leads them to stray from the device's intended purpose; misusing technology, which can lead to breakage; and so forth. Based on the results, Administrators were advised to prioritise purchasing educational materials for the benefit of students and teaching staff members. Workshops and seminars should be held periodically to teach electronics teachers how to create educational materials and use them effectively to achieve learning objectives. Additionally, educators who teach electronics should have the ingenuity to acquire teaching resources unavailable in classrooms. To ensure the teaching resources are still functional and in good working order, educators should frequently review them.*

**Keywords:** KwaraLearn, Technology, Dutiful officer

**Introduction**

Integrating technology in subject curricula and classroom teaching and management is a complex process usually achieved by following a set of guiding parameters. In this module, there are two complementary activities: the first focuses on the theories and principles that underpin ICT integration in education, and the second is teachers' computer-assisted practice in the use of ICT with support from web-based portals. Adeyemo (2020) has further argued that teaching methods have gone beyond traditional methods, making integrating information technologies very important in classroom teaching. Information technology has broken the monopoly and provided variety in the teaching-learning situation in chemistry. This means that information technology should be properly rooted in the senior secondary school curriculum so that the literacy level will be increased regarding the use of technology in classroom teaching (Yusuf, 2019).

KwaraLearn (Kwara Leading Education Achievement and Reform Now) (KWSUBEB, 2021) is a core new education programme by the Government of Kwara State to dramatically improve learning outcomes in public schools for all children across Kwara State. KwaraLEARN will transform all government primary schools across the state into powerful public schools using an innovative technology and data-driven platform, high-quality learning materials, effective training and ongoing coaching for teachers and school leaders, and technology-enabled support teams to create 360-degree support for learning outcomes. Functional and high-quality teaching and learning processes were needed to help students improve in schools across the state. The current administration created KwaraLEARN, which led to the installation of robust teaching-learning technology using a content-based approach (Lawal, 2022).

Teacher development is becoming increasingly important as organisations attempt to maintain competitiveness and productivity, having recognised career management as a component of strategic human capital formation in dynamic environments (King, 2018). It removes performance deficiencies, retrains displaced workers, trains in workplace safety, develops management personnel, and fosters career development (Quick & Nelson, 2018).

Studying the level of productivity of teachers in private firms in third-world countries with specific reference to Nigeria. competence Teachers' job performance is an important competency that enhances the accomplishment of the school's set goals and objectives to promote students' academic achievement. The school should choose appropriate motivational strategies to facilitate improved and productive job commitment (Salami, 2019). The same document argues that since every teacher attaches a lot of substantial and sustainable livelihood from schools, their efforts to perform assigned tasks are always in tention with obtained benefits. According to Dorothy (2020), the management of schools should not expect a lot from teachers by giving little in return. The work suggests that an internal system should be established in institutions that measure productivity and indicate equivalent monetary rewards.

In an educational institution, in-service teacher training seeks to improve individuals' capacities to play their roles and fit in assignments optimally for higher achievements resulting from quality service delivery. The programme foci may include classroom management, lesson organisation, recording and reporting students' work achievement on assessable and acquired for-life standards, teaching skills, teacher behaviour, teacher administration, material resource management, student management, and so on (Jamil et al., 2018). therefore, improvement of teacher competence is crucial to attaining quality education. In the past few years, many studies have been carried out by eminent scholars on the link between employee development programmes and institutional productivity (Jucius, 2016; Mathis & Jackson, 2018; Halsey, 2019). Organisations worldwide are set up to attain specific objectives, and achieving such mandates to a large extent requires effective deployment and utilisation of factors of production such as land, capital, materials, finance, labour, and time. Among the factors of production, the employee has generally been recognised as the highly prized asset of any organisation because it is the human component that plans, organises, coordinates, and puts other factors of production into effective use for attaining organisational goals.

The obvious strategic position of teachers in an institution makes it imperative that they be effectively and efficiently compensated for their labour (Ude & Coker, 2020). This is true because the realisation of institutional goals could be an effort in futility without the committed efforts of employees in the workplace. It is in this sense that Drucker (2019) affirms that the work of management should be making people productive in order to attain optimum performance and compete favourably on the global stage through proper incentive schemes. Hence, labour as a factor of production deserves wages and other incentives as morale boosters for efficient performance, which translates to organisational productivity. The strategy for boosting teachers' morale is technically termed motivation, a component of training and development practice. As a result of scientific and technological development, modern societies are increasingly confronted with many principles, changes and new challenges in almost all aspects of life. These developments bring about new machines, equipment, principles and processes that automatically affect the initial way of doing things. In the contemporary world, a nation is regarded as developed if it can produce efficiently and effectively, which largely depends on a highly skilled and flexible labour force. Modern societies require sound education and continuous training and development, particularly in science and technology, to cope with these global changes and meet new challenges. The knowledge and skills of professionals from all walks of life would suddenly become obsolete in a continuously changing environment if they failed to update their knowledge and skills through appropriate and continuous training and development.

Generally, teacher development programmes are the various means by which all categories of teachers working in an institution are encouraged to improve their capabilities and be more effective in their job performance. In Kwara State, teacher development programmes refer to opportunities provided for the teacher to increase their knowledge, skills, experiences, and understanding, thereby improving their job performance. According to the Kwara State Universal Basic Education Board (KWSUBEB, 2022), these opportunities include educational programmes such as Kwara Leading Education Achievement and Reform Now (KwaraLEARN, 2022). Others include short training courses such as conferences, seminars, and workshops; writing articles in educational journals; sabbatical leave; and induction training programmes for newly employed teachers.

### **Statement of the Problem**

Teacher development programme has been considered or described by many researchers, scholars, and writers as the most valuable resource of an institution. Despite the complex nature of human beings, which is their

personality, character and the ability to achieve goals, people differ in all aspects. Without an adequate, skilled, and well-motivated workforce operating within a sound teacher development programme, development is not possible. Any organisation that underrates people's critical role in goal achievement can neither be effective nor efficient. Onah, (2018). Like any other organisation, schools face problems that will encourage teachers to work productively and qualitatively towards achieving their set objectives.

Teacher training and development, according to Cumming (2018), means "the provision of facilities and opportunities for people to acquire the skills and knowledge needed to perform the jobs for which they are employed and to develop their potentials to meet the present and future needs of an institution. Without an adequate, skilled and well-motivated workforce operating within a sound human resource management program, development is not possible. Any educational institution that underrates the critical role of teachers in goal achievement can neither be effective nor efficient. Onah, (2018). Like any other organisation, schools in Kwara State face problems that will encourage teachers to work productively towards achieving their set objectives. Whether this effort succeeds or fails depends very much on the institution's ability to train and develop its teachers into a productive, competent and skilled workforce capable of and willing to work towards these objectives.

Despite the concerted effort of the government to enhance teacher commitment and improve students' academic performance through various initiative programmes and retraining activities, there is still little to show for it in terms of students' performance across schools in the state. However, the present state government, in the person of Mallam Abdulrahman Abdulrasaq (GCN)) introduced the programme tagged "KwaraLEARN," an innovative training program packaged to enhance teachers' instructional strategies and efficiency and improve the quality of instruction.

None of such programmes has come to stay in schools across the state. However, teachers are often exposed to various training programs through seminar conferences and workshops, which is quite different from the present KwaraLEARN, where teaching tablets were given to teachers after they successfully participated in the weeks of the training programme. Thus, the present study will seek a solid foundation for subsequent research and build the gap left in earlier related research.

### **Purpose of the Study**

The main purpose of the research is to investigate the impact of the effective usage of Kwara learning in the teaching profession as an effective measure for dutiful officers in Kwara State.

Specifically, the study seeks to;

- i. Assess the impact of Kwara learn on teachers' instructional competency.
- ii. Find out the impact of Kwara learning on teachers' attitudes toward teaching.
- iii. Examine the challenges of Kwara learning on teachers' job performance.

### **Research Questions**

The research will provide answers to the following research questions.

1. How does KwaraLearn impact teachers' instructional competency in some selected schools in Kwara State?
2. Does KwaraLearn significantly impact teacher's attitudes toward teaching in some selected schools in Kwara State?
3. What do teachers face in adopting the KwaraLearn programme in some selected schools in Kwara State?

### **Methodology**

This study used a descriptive survey method to examine the impact of effective KwaraLearn training on primary school teachers in Ilorin Kwara. The sample population includes 120 teachers from 12 primary schools in Ilorin South, Kwara State. The researcher uses a well-structured questionnaire, the "Kwara LEARN and Teachers' Effectiveness Questionnaire" (KWLEARNTEQ), to gather relevant information. The questionnaire consists of two sections, 'A' seeking personal information and 'B' containing 15 items developed by the researcher. The instrument's reliability is determined through a test-retest method, with a reliability coefficient between 0.50-0.95. Data collection is conducted personally, with permission from appropriate authorities. The study uses

descriptive statistical tools to analyse demographic data, while mean and standard deviation are used to analyse the research question.

### Literature Review

The core of our electoral campaign to the people of Kwara State is to restore the dignity of the Kwarans, redeem the state's lost glory in all its ramifications, ensure inclusive growth, and reposition it for greatness and competitiveness in Nigeria. This is in fulfilment of the election promise to the Kwarans and to boost education. The core goals of this campaign are human capital development and high-quality education, both essential for equitable growth and upward social mobility in the knowledge economy (KWSUBEB, 2021). Teacher development is one of the ways by which employers use to make teachers derive pleasure and be comfortable with their jobs. Suppose teachers can benefit from development programmes most appropriate to their primary assignment or areas of specialisation. In that case, they tend to understand their jobs better, become confident in their abilities and develop a feeling of belongingness in the organisation. Feelings like these always motivate teachers to raise their performance standards and increase their commitment and dedication to their jobs. This situation is called job satisfaction, which, according to Ladan (2018), is a situation where the work environment and the conditions of service motivate a Teacher to reach a state of self-fulfilment.

Jacobs and Gravett (2018), cited by Mandlate (2019), reported on research conducted in Australia that highlighted two additional problems of teachers that portrayed the need for teacher development. The first problem is that teachers regard students as learners but pay little attention to the learning environment. Secondly, teachers often do cognitively demanding tasks instead of challenging the learners' potentialities. At the time of this report, the writer, a teacher at the Eduardo Mondlane High School (EMHS) in Mozambique, pointed out that it would not be surprising if lecturers elsewhere still held these beliefs. The writer further explained that the Teacher Development Project (TDP) in UEM offers teaching methods courses to train beginning teachers who were recruited into academic careers without prior professional training.

Teacher training and development is one of the fundamental objectives of the personnel policies of Colleges. However, much research has not been conducted in the field, and as a result, there is a dearth of literature on this subject. Nevertheless, the few available and accessible ones will be reviewed. Kablr (2018) researched Teacher development -and training At the Federal College of Education (Technical) Gombe. Specifically, Kabir studied the objectives of the training programs:" the process of selection of trainees and the organisation of the training program. Kabir identified lack of funds as the main problem militating against the programs, and he recommended that the college budget more money for the programs. He also recommended periodic seminars for the teacher. Amadi (2019) examined the personnel function in the College's human resources development, using Adeyemi College of Education, Ondo, as a case study. Amadi investigated how Conditions and uncertainties in an organisation and its administrative processes affect human resources development. She also examined the role of the College's personnel department and the problems it faced in its human resources development. She intended to prescribe an ideal personnel administration system within the College which could effectively achieve the human resources needs of the College. Amadi found that the teachers were generally dissatisfied with the policy guidelines on training in the College and had mixed feelings about how the guidelines were being selectively adopted and applied. Most of the Teachers felt that there should be a review of both the guidelines and mode of implementation. Amadi, therefore, recommended that the College authority design a personnel development policy that would cut across the board and called for a personnel department that would be autonomous for the effective and efficient management of College personnel development policies.

Aliyu (2019) wrote a paper on Teacher training and development and their value to the Federal Staff School Kano. He argued that training is a form of Incentive to a member of the teacher who has performed creditably at a given level of responsibility and is being groomed for higher responsibility. On the other hand, training could be necessary for a Teacher who appears to have reached his optimum in a given job or task due to his academic or professional attainment level. He argued that this category of workers, if not trained, would be declining in productivity, initiative, and drive. Aliyu's (2018) argument centred on the point that if a shortage of personnel plagued "even older schools, many of which are advantageously located for manpower supply, one could imagine how serious the problem could be for young schools not so advantageously situated". He, therefore,

recommended massive and thorough training and development of teachers in the schools; he also recommended the termination of the appointment of any Teacher who fails to uphold the terms of the training agreement of the board period and, in addition, refund of the cost of training, including all salaries and allowances paid to him or face Court action.

The works reviewed clearly show that most aspects of teacher training and development have been broadly considered in the studies. The researchers have generally discussed the shortcomings in the organisation and administration of teacher training and development programs and how the shortcomings could be overcome; most of their recommendations generally centred on how to arouse the Interest of the respective organisations in teacher training and development and called for the improvement of the administration of teacher development programs. Few others called for adequate funding of the training programs of the organisation they studied. One major problem most of the works highlighted was the quantitative aspect of training outcomes. Most researchers agree on the correlation between teacher training and teacher motivation and productivity. However, none of the reviewed works produced empirical evidence proving or disproving the correlation. Most of the studies reviewed relate in substantial ways to this research. Therefore, the recommendations in the works reviewed are relevant to this study and insofar would serve as guidelines when concluding this study. Above all, the knotty correlation between teacher training and teacher productivity will also be reconsidered in this study for the possibility of breaking new ground.

Another theoretical postulation which this research wishes to examine is the correlation between teacher training and productivity. Miner and Miners (2014) advocated that all organisations must be involved in the pursuit of productivity or task goal - which refers to the whole of procedures and activities that management carries out to maximise the attainment of the organisation's stated purpose. In the context of the general principles and practices of teacher development, teacher training and development has been adjudged to be one factor that motivates teachers to Increase their productivity. There are many theoretical bases for such a conclusion; Stahl (2018), for instance, argued that The development of teachers is the essence of supervision, and it assumes a role of great significance to the quality of service and long-range effectiveness of the organisation. Harris (2019) was more specific in his correlation between teacher training and productivity when he argued that "certain types of performance are necessary to help the organisation reach its objectives and training - assists by providing organisational members with the tools to get the job done.

### Data Analysis

This section presents the demographics analysis of sample respondents using descriptive statistics of frequency count and percentage.

**Table 1**

*Gender distribution of respondents*

Gender	Frequency Counts	Percentage (%)
Male	50	41.7
Female	70	58.3
<b>Total</b>	<b>120</b>	<b>100.0</b>

From the table, 50 teachers, representing 41.7% of the sample respondents, were male, while the remaining 70, representing 58.3%, were female.

**Table 2**

*Demographic data on teachers' qualification*

Teachers' Qualification	Frequency	Percentage
Grade II/DIP	10	8.3
NCE	50	41.7
BA/B.Ed	40	33.3
M.A/M.Ed /M.Sc	20	16.7
<b>Total</b>	<b>120</b>	<b>100</b>

The demographic data on teachers' qualifications shows that those with an NCE degree are more numerous than those with a grade II diploma, B.A/B.ED and B.Ed. from the table, 10(8.3%) of the respondents had grade II diploma certificates, 50(41.7%) had NCE certificates, 40(33.3%) had a first degree (B.A/B.ED & B.Ed) while the remaining 20(16.7%) has Master Degree (MA/M.Ed /M.Sc).

**Table 3***Demographic data on teacher's year of teaching experience*

Teaching Experience (Years)	Frequency (No.)	Percentage
Less than 5 years	32	26.7
Between 5-10 years	36	30.0
Between 10-20 years	40	33.3
Above 20 years	12	10.0
<b>Total</b>	<b>120</b>	<b>100.0</b>

The demographic data on teachers' teaching experience shows that teachers with 10-20 years experience are more numerous than those with less than 10 years of experience. From the table, 32(26.7%) had less than 5 years of experience, 36(30.0%) had between 5-10 years of experience, 40(33.3%) had between 10-20 years of experience while the remaining 12(10.0%) had above 20 years experience.

### Answering of Research Questions

**Research Question 1:-** What is the impact of KwaraLearn on teachers' instructional competency in some selected schools in Kwara State?

**Table 4***Descriptive statistics showing the impact of Kwara Learn on teacher's instructional competency (N=120)*

S/N	Items	Agreed (%)	Disagreed (%)	Mean
1.	Kwara learn to enhance teacher's instructional competency	95 (79.2)	25 (20.8)	3.16
2.	KwaraLearn allows teachers to deal with issues and challenges in their job efficiency.	105 (87.5)	15 (12.5)	3.11
3.	KwaraLearn assists teachers in discussing their experiences with other colleagues, improving their knowledge and job productivity.	100 (83.3)	20 (16.7)	3.13
4.	KwaraLearn increases the knowledge skills of teachers	90 (75.0)	30 (25.0)	2.88
5.	KwaraLearn assists teachers to improve their communication skills	78 (65.0)	42 (35.0)	2.67
6	KwaraLearn allow teachers to improve their knowledge and job productivity	110 (91.7)	10 ( 8.3 )	3.16
	<b>Weighted Mean</b>			<b>2.86</b>

Results in Table 4 on the impact of KwaraLearn on teachers' instructional competency in some selected schools in Kwara State show that 95(79.2%) of the teachers agreed that Kwara Learn enhances teacher's instructional competency as against 25(20.8%) of the teachers who disagreed. Also, 105 (87.5.0%) respondents agreed that KwaraLearn allows teachers to deal with issues and challenges in their job efficiency. In comparison, 15 (12.5%) disagree with a mean score of 3.16, above the 2.50 criterion mean.

In response to item 3, 100(83.3%) of the respondent agreed thatKwara learn assist teachers to discuss their experiences with other colleagues and this improves their knowledge and job productivity. In comparison, 20(16.7%) disagree, item 5 state that Kwara learn increases the knowledge skills of teachers, 90(75.5%) agreed that the Kwara Learn take up in class room, 78(65.0%) agreed that Kwara learn allow the teachers to improve

their knowledge and job productivity, 110 (91.7%) agree. In comparison, 10(8.3%) disagree.

**Research Question 2:** Does KwaraLearn haVE any significant impact on teacher's attitude toward teaching in some selected schools in Kwara State?

**Table 5**

*Descriptive statistics showing the significant impact of Kwara Learn on teacher's attitude toward teaching (N=120)*

S/N	Items	Agree	%	Disagree	%	Std
7.	Kwara learn enhances teacher's job commitment and satisfaction.	86	71.7	34	28.3	2.68
8.	Kwara learn provide useful information, increase the knowledge and understanding of subject matter.	92	76.6	28	25.4	2.78
9.	Kwara learn assists teacher to discuss new trends in educational development and this improves their knowledge and enhances their productivity.	100	83.3	20	16.7	3.05
10.	Kwara learn enables teachers to master the techniques enhances their commitment on the job.	80	66.7	40	33.3	2.76
11.	Kwara learn serves as motivational factors for teachers to improve on their job.	94	78.3	36	21.7	2.98
12	Kwara learn provides teachers with an efficient means of career management.	88	73.3	32	26.7	2.76
<b>Weighted Mean</b>						<b>2.89</b>

The above table shows respondent responses on the significant impact of Kwara Learn on teacher's attitude toward teaching in some selected schools in Kwara State, 86(71.6%) of the respondents agreed that Kwara learn enhances teacher's job commitment and satisfaction while 34(28.4%) of them disagreed on the statement with mean score of 2.68 which is above the criterion mean of 2.50 and said to be agree of the statement. On item 7, 142 (71.0%) of the respondents also agreed that Kwara learn provide useful information, increase the knowledge and understanding of subject matter while 58(29.0%) disagreed with the statement. In response to item 8, 152(76.0%) agreed that there are enough Kwara Learn materials to teach the student as against 48 (24.0%) of the respondent who were disagreed. On item 9, 46(23.0%) of the respondent responses agreed that teachers are knowledgeable in the use of Kwara Learn as against 154(77.0%) who disagreed with the statement. 44(22.0%) of the teacher sampled agreed that Kwara Learn facilities are readily available and functional while 156 (78.0%) disagreed.

**Research Question 3:** What are the challenges faced by teachers in the adoption of Kwara learn programme in some selected schools in Kwara State?

**Table 6**

*Descriptive statistics of respondent's responses on the challenges faced in the adoption of Kwara Learn (N=120).*

S/N	Items	Agreed	%	Disagreed	%	Std
13.	Most teachers find it difficult to operate the gadget, and this influence their job effectiveness	76	70.0	44	30.0	2.67
14.	Bulkiness in the curriculum create some challenges in adoption of Kwara learn	80	66.6	40	33.4	2.89
15.	Sophistication in the design of the gadget often create some challenge in its usage	68	56.7	52	43.3	2.34
16.	Poor interpretations of contents often make some teachers deviate from the original content of gadget.	74	61.7	46	38.3	2.69
17	Technology misuse and breakage are some of the challenges experienced while using the gadget.	72	60.0	48	40.0	2.58
18	Uncharged and unreliable devices often make the use of gadgets difficult.	80	66.7	40	33.3	2.90
<b>Weighted Mean</b>						<b>2.56</b>

Results on Table 6 shows respondent responses on the challenges faced by teachers in the adoption of Kwara learn programme in some selected schools in Kwara State. From the table, 80(61.7%) of the respondent agrees that most teacher find it difficult to operate the gadget and this influence their job effectiveness as against 40(38.3.0%) who disagrees, item 14 state that bulkiness in the curriculum create some challenges in adoption of Kwara learn, 68(56.7%) of the respondent agrees while 52(43.3%) disagree. Item 15, state that Kwara Learn enhances quality of work of both teachers and teachers. 74(61.7.0%) of the respondent agrees while 46(38.3%) disagree. Item 14, 80(66.6%) agree that Kwara Learn enhance teachers up-to-date decision making on various disciplines, while 40(33.4%) disagree. Item 15 state that Sophistication in the design of the gadget often create some challenge in its usage, 68(56.7%) agrees, while 52(43.3%) disagree. In response to item 16, 74 (61.7%) agrees while 46(38.3%) disagree, on item 17 72(60.0%) agree and 48(40.0%) disagree on the statement that technology misuse and breakage are some of the challenge experience while using the gadget. On item 18, 80(66.7%)agree as against 40(41.7%) who were disagree. The aggregate mean score for the entire items is 2.56 which is superior and high above the criterion mean of 2.50 and also testify the facts that some of these issues create some challenges to the use of KwaraLearn gadgets, bulkiness in the curriculum creates some challenges in adoption of Kwara learn,

### Discussion of Findings

Result on Table 3 show that primary school themselves as having competencies in many aspects of technology integration. The result of this study could be as a result of increased awareness on importance of technological communications in education. This finding is in line with Bauer and Kenton (2019) who found that teachers were highly skilled in technology and had the competencies required for successful technology integration. This result is contrary to the findings of Ndirika and Elekwa (2020) who carried out a similar study on science teachers and found that teachers were only competent in minor computer skills and majority were only competent in utilising technology for reference materials. Results, however, indicate that teachers do not have competency in discussing diversity issues related to electronic media, troubleshooting computer problems, proficiency in the use of common input and output devices and cannot make informed choices about technology systems. Interestingly, though, many of the basic science teachers do not agree that technology use is a low priority for teachers.



From Table 4, it was revealed that the perceived benefits of using Kwara Learn in schools include making teaching-learning programmes, helping teachers to be up-to-date, enhancing the quality of work by both teachers and teachers,. This finding might not be unconnected with the fact that the teachers know the importance inherent in the use of Kwara Learn in the teaching-learning. This finding corroborates Kwache (2017) who submitted that the application of Kwara Learn makes institutions more efficient and productive, enhance and facilitate pedagogical activities. Similarly, Ayeni (2020) posited that the fact that Kwara Learn is accurate fact and reliable and has the capacity to store and disseminate large information within the shortest periods make it a veritable and indispensable instrument for distance education programme.

The results in Table 5 show how teachers perceive obstacles and incentives related to successful technology integration in the classroom. The results show that basic science teachers perceive lack of encouragement, unavailability of equipped computer labs, qualified staff and appropriate technology, as obstacles to technology integration in science classroom. Pertaining to incentives, the teachers are not in agreement that there are incentives for technology integration available to them. The result of this study corroborates the findings of Flores (2019), who concluded that teachers face many barriers in their quest to incorporate technology, such as time scheduling, administrative support, equity and the lack of resources. However basic science teachers used in this study do not perceive time as a barrier to technology integration.

### Conclusion

The delivery of quality instruction in the classroom in any education system depends largely on the quality and competence of the teachers. This is because the teachers are expected to perform the important function of guiding, directing, evaluating, imparting, asking and answering questions among others for maximum benefits of the learners. The implication is that the teacher is the stronghold on which the business of educators rests upon the world over. The competent electronics teacher who is curious of effective instructional delivery sees instructional materials not as a gadgets like textbooks, chalks, chalkboard but as every necessary resources and objects which the teacher develops and improvises for use in the process of instructional delivery to concretise his lesson for effective and more reliable understanding by the learner about skills and knowledge of electronics lesson.

The adoption and use of Kwara Learn-driven instructional aids in schools have a positive impact on teaching and learning. Despite the roles Kwara Learn-driven instructional aids can play education, schools in the state have yet to extensively adopt them for teaching and learning. Efforts geared towards integration of Kwara Learn-driven instructional aids into the school system, have not had much impact. Problems such as poor policy and project implementation strategies and poor information infrastructure militate against these efforts.

### Recommendations

Based on the conclusion of the research, the researchers recommended the following:

1. Administrators should prioritise the purchase of instructional materials for instructional purposes of the student and teaching staff members.
2. Workshops and seminars should be organised from time to time for electronics teachers where they would be taught not only how to produce instructional material but also how to use them effectively for the achievement of educational goals.
3. Teachers of electronics should be resourceful enough to procure instructional materials and that are lacking in the schools. Teachers should check the instructional materials often to ensure that it is still working and in good running condition.
4. Teachers should be more committed to teaching with the use of Kwara Learn-driven instructional aids, given the importance of practical knowledge in it.
5. The institutions and teachers education should mount periodic training sessions for teachers on the use of Kwara Learn-driven instructional aids.
6. Adequate incentives should be given to basic science teachers who make positive effort to integrate technology in classroom communications. The government should provide secondary schools with well-equipped computer laboratories that enable basic science teachers to effectively integrate technology in classroom communications.

**References**

- Abubakar, B.H. (2016). *Technology and development, a necessary tool for corporate survival in a competitive environment*: Unpublished MBA Thesis, Ahmadu Bello University, Zaria.
- Adamu, A.D. (2018). *Techonology and innovation in the eduactional system in Nigeria*: Astag Printing Press.
- Adeyemo, C.P. (2020). Integrating learning technology into classrooms: The importance of teacher' perceptions. *Educational Technology & Society*, 5(1), 37-44.
- Ajayi, P. R. (2019). Some factors in the development of self-efficacy beliefs for computer use among teacher education students. *Journal of Technology and Teacher Education*, 9(3), 221-247.
- Alhas, M. N. (2018). *Pertinent issues in employee management*. Kampala: M.P.K. Graphics. *Journal of Computer Assisted Learning*, 19
- Aliyu, A. (2019). *Conducting research in education and the social sciences*. Enugu: Tashiwa Networks Ltd.
- Aliyu, A.A. (2018). *Research methods in education*. Ibadan: Stirling – Horsen publishers (Nigeria) limited.
- Amadi, J.K. (2019). *The effects of information communication and technology on productivity*. Ajas printing press.(Pg 51-53)
- Bauer, S., & Kenton, M. U. (2019). A path analysis of the impact of application-specific perceptions of computer self-efficacy and anxiety on technology acceptance. *Journal of Organizational and End User Computing*, 22(3), 82-95.
- Bellingham, J. (2018). *Academic dictionary of education*. (1st ed.) New Delhi. Academic India publishers.
- Buba, H. (2017). *Recruitment, selection and development of personnel in Kaduna Polytechnic*. Unpublished master's research report. ABU, Zaria.
- Buba, P., Edoka, S.,; Kajaeng, I.S.; Bajah, H.T. (2018). Mobile learning for teacher professional learning: Benefits, obstacles and issues. *ALT-J: Research in Learning Technology*, 13(3), 133-147.
- Cole, G.A. (2018). *Personnel and human resources management*. (5th ed.) London: Book power ELST Educational Low-priced sponsored texts.
- Cumming, L.A. (2018). *Needs assessment for technology and development in Nigerian schools*: Olam printing press
- Cyndy, (2016). *Classified employee staff development programme guidelines*. Retrieved February 2nd 2016.
- Dabo, D.A. (2020). *Technology and development for optimum utilization of human resources*: Unpublished research report. ABU, Zaria.
- Daramola, S.O (2016). The effects of the school environment on students' achievement level in Plateau state? Unpublished M.E.d Thesis University of Jos.
- Dorothy, T. (2020). *Technology information systems* (10th ed.) London: Bookpower formerly ELST with Thomson Learning.
- Drucker (2014). *Technology development programme September 2014 to April 2014*. Retrieved December 10th 2014.
- Edogbanya, F. J., (2018) & Abdullahi, K. F. (2019). Factor analysis in the development and refinement of clinical as-sessment instruments. *Psychological Assessment*, 7(3), 186-199.
- Fafunwa, A (1974): *History of Education in Nigeria* London, George Allen and Unwin Press.
- Federal Republic of Nigeria (2016). *National Policy on Education*. Lagos: NERDC
- Flippo, S.D. (2020). *A staff development programme for promoting change in higher education teaching and learning practice*. Retrieved September 29th, 2020.
- Flores, G.K. (2019). Managing teachers' barriers to ICT integration in Singapore schools. *Journal of Technology and Teacher Education*, 12(1), 67-85..
- Hacket, P.O. (2019). Teacher variables and senior secondary students' achievement in Mathematics in Rivers State, Nigeria. *European Scientific Journal*, 9 (10), 271-289.
- Halsey, N. (2019). In-service training: A strategy for improving teacher competence in Anambra State Secondary Schools. *Nigerian Journal of Curriculum and Instruction* (1) 42 – 49.
- Halsey, R. L. (2019). *Student acceptance of mobile learning*. (Unpublished doctoral dissertation). Flor-ida State University, USA.
- Harris, B. (2019). The influence of specific computer experiences on computer self efficacy beliefs. *Computers in Human Behavior*, 19(4), 243-250.
- Hayle, A. R. (2020). Exploring the wiki user experience: The effects of training spaces on novice user usability and anxiety towards wiki editing. *Interacting with Computers*, 23(2), 117-128.
- Henrby, A. D. (2019). Perceived usefulness, perceived ease of use, and user acceptance of information tech-

- nology. *MIS Quarterly*, 13(3), 9-340.
- Hussain, M.M. (2016). *An assessment of the staff training scheme, ABU Zaria*. Unpublished master's research report. ABU, Zaria.
- Jacob, I.O. and Gravett, M.A. (2018). *An assessment of the state of the Colleges of Education in relation to the 9 year basic education curriculum structure and the global economic recession*. Proceedings of the 1st Zonal Academic Conference of COEASU, Northwest Zone. Held at Adamu Augie College of Education, Argungu.
- Jamil, Atta, Ali, U. Balochi, I.S. & Ayaz, O.H. (2018). Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature. *International Journal of Education & Development using Information & Communication Technology*, 8(1).
- Jucius, S. C., Mathis, F. C. & Jackson, (2018);. An empirical investigation of students' behavioral intentions to use the online learning course websites. *British Journal of Educational Technology*, 39(1), 71-83.
- Kabir, A.M. (2018). *The impact of training and development on workers productivity: A case study of National Maritime Authority, Lagos*. Unpublished master's research report. ABU, Zaria.
- Kangiwa, L.A. (2018). *Recruitment, training and development of staff. A case study of Afribank Nigeria Plc*. Unpublished master's research report, ABU, Zaria.
- King, E. I. (2018). *Agencies and the management of education in Nigeria*. Proceedings of the sixth National Conference of the National Association of Educational Planners and Managers in collaboration with the Department of Education, ABU, Zaria.
- Kwache, M. (2017). Factors affecting teachers' adoption of educational computer games: A case study. *British Journal of Educational Technology*, 31(2), 156-170.
- Kwaralearn,. (2022) Developing digital information literacy in primary education: Obstacles and supports. *Online press*. 10,
- KWSUBEB, (2021). Kwara State Universal Basic Education Board. Mobile learning in teacher training. *Journal of Computer Assisted Learning*, 19, 60-75.
- Lawal, B. J., (2022). Computer experience and computer anxiety. *Computers in Human Behavior*, 19(6), 385-397.
- Mandlate, A.N. (2019). Human Resource Management in 21st century: Issues and challenges and Possible solution to attain competitiveness". *International Journal of Academic Research in Business and Social Sciences*, 2 (9): p44-52. 9p.
- Mathis, R.L. & Jackson, J. H. (2018). *Human resource management* (11th ed.) USA: Thomson South – Western.
- Miner, I.S. and Miners, A.N. (2019). *Staff development policy*. (rev. ed.). Retrieved May 30th 2019. From <http://www.qaa.ac.uk/publication/informat>.
- Mundat, G. S. (2019). *Manpower training and development in the banking sector: A case study of Union Bank of Nigeria Plc. Staff training center*. Unpublished master's research report. ABU, Zaria.
- Musaani, A. (2019). User acceptance of information technology. In W. Karwowski (Ed.), *Encyclopedia of human factors and ergonomics*. London: Taylor and Francis.
- Nasir, R. G. (2019). Computer self-efficacy and anxiety scales for an Internet sample: Testing measurement equivalence of existing measures and development of new scales. *Computers in Human Behavior*, 20(1), 1-25.
- Ndirika, S., & Elekwa, K., (2020). Teacher perspectives on integrating ICT into subject teaching: Commitment, constraints, caution, and change. *Journal of Curriculum Studies* 37(2), 255-292.
- Okosuwe, A.O. (2018). *Application of motivational theories as tool for effective human resource management in Nigerian public service: A case study of Federal Ministry of Works and Housing*. Unpublished master's research report ABU, Zaria.
- Onah, H.-C., (2018). A knowledge engineering approach to developing e-libraries for mobile learning. *The Electronic Library*, 26(3), 303 - 317.
- Orimolaye, D., (2018). The relative importance of perceived ease of use in is adoption: A study of e-commerce adoption. *Journal of the Association for Information Systems*, 1(1:8).
- Peretomode, V.F. (1992). *Educational administration: Applied concepts and theoretical perspective for students and practitioners*. Nigeria: Joja Educational Research and publishers Limited.
- Pigors, J. J., & Myers, M. J., (2019). The influence of computer anxiety on experienced computer users while performing complex computer tasks. *Computers in Human Behavior*, 22(3), 256-266.

- Quick and Nelson I.S. (2018). *Staff development programme. Administrative guide memo 22.11*. Retrieved September 29th, 2018. From <http://www.doc-txt/staff-development>.
- Ramos, H.J., Costa, Y.R. Tavares & Huet, K.T..(2016). M-learning: Finding a place for mobile technologies within tertiary educational settings.
- Salami, A.A. (2019). Introduction to teachers education and teaching profession in Nigeria Ilorin Ben James
- Salisu, F. (2019). Lecturers and educational technology: Factors affecting educational technology adoption in teaching. *Journal of Technology and Teacher Education*, 4(2), 421-447.
- Shukla, C. (2018). Explaining effective teaching: Self-efficacy and thought control of action. *Journal of Educational Enquiry*, 4(2), 1-14.
- Stahl, R.H. (2018). Multicollinearity and measurement error in structural equation models: Implications for theory testing. *Marketing Science*, 23, 4 319-329.
- Stantev, S.B. (2020). Measuring teachers' self-efficacy beliefs: Development and use of the TEBS-Self. *Teaching and Teacher Education*, 24(3), 551-566.
- Ubangida, Y. (2015). *Motivation and productivity of secondary school teachers: A case study of GSS Kofar Gayan, Zaria*. Unpublished master's research report. ABU, Zaria.
- Ude, C. A. & Coker, M. L. (2020). *Management of physical education and sport*. (12th ed.) USA: McGraw-Hill.
- Ukeja, F. D. (2019). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 16(18), 711-732.
- UNESCO, (2022) (United Nations Educational, Scientific and Cultural Organization). *The hidden crisis: Armed conflict and education* [Education for AllMonitoring Report]. Paris, France: Author.
- Yusuf, T.O. (2019). Teachers "teaching experience and students "learning outcomes in Secondary schools in Ondo State, Nigeria. *Journal of Information Technology*, 7(5), 201-209.