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Planning and Integration of ICT on Teacher Education Professional Development for   Enhancing Teaching and Learning of Yoruba Migrated Indigenes of Lagos State in Diaspora

Emmanuel Semako Gbesoevi[*]**, Hendeweh Dorcas Hunpegan**[2]**, Jide Pius Gbenu**[3]

1&3Department of Educational Management, Faculty of Education, Lagos State University, Ojo, Nigeria
2Department of Language, Arts and Social Science Education, Faculty of Education, Lagos State University, Ojo, Nigeria

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A B S T R A C T

This study examine planning and integration of ICT on teacher's professional development among yoruba migrated indigene of Lagos State in Diaspora. This study adopted a descriptive correlational research design. A simple and purposive random sampling techniques was adopted to select the sample for this study. Data was collected through a self-designed questionnaire titled" Planning and Integration of ICT on Teachers Education for Professional Development for Migrated Yoruba Indigenes of Lagos State in Diaspora" (PLICTTEPDMYILSD). The instrument was validated through face and content validity and was found reliable at 0.71 coefficients using a test retest reliability method. Data collected for testing the hypothesis at 0.05 level of significance was analyzed using Pearson's Product-Moment Correlation Coefficient. The results showed a significant relationship between ICT and teaching and learning outcome of Yoruba Migrated Indigene in Diaspora: a significant relationship between Information communication Technology and teaching effectiveness of Yoruba Migrated Indigenes of Lagos State in Diaspora: a significant relationship between teacher and student accessibility to Information Communication Technology and the productivity the Yoruba Migrated Indigene of Lagos State in Diaspora. It was recommended that proper planning and integration of ICT in education among Yoruba Migrated Indigene of Lagos State in Diaspora.

1.   Introduction

Globally, education is the backbone of every nation. Educational plays a major outstanding role in development of modern economies. Understanding how

educational system work and how it evolves over time has been one of the most important research agenda in recent years. The educational system of any economy from any geographical point of view performs the following main tasks: first, it handles the basic and higher education; secondly, it provides better opportunities of income; thirdly, it enhances the living standard and help in social development of a nation. Planning and integration of Information and Communication Technology (ICT) plays a significant role in impacting education in modern scenarios. At the height of the internet boom of 1990's, a fashionable saying was "the internet changes everything". The ICT changed the way of impacting education in modern era for development. The link between Information and Communication Technology and education is globally seen as a necessity and an opportunity. Technology integration is the use of technology to achieve learning goals and to empower students learning throughout the instructional program (Cartwright & Hammond, 2013). As a result of this, many high profile initiatives have been undertaken to create awareness of ICT benefits, raise investment levels and promote ICT policy, Initiatives and the recent UN World Summit for the Information Society (WSIS) (Shirin, 2014).

School administrators in Nigeria - teachers, educational policy makers, educational planners, decision makers and investors in the society realize that with Information and communication Technology educational planners are well informed about public policy, politics, planning and investment in ICT as regards education at various level and most importantly at the tertiary education level by understanding how the internet and its related components are utilized. This will identify the extent to which ICT is being used and will identify the factors that enhances its utilization to explain the integration of ICT into teaching and learning of Yoruba migrated indigenes of Lagos State in Diaspora. Virtually everything one does requires information. This is common to see that a continent like Africa, particularly Nigeria need proper mode of information dissemination for her existence. However, over the years the content and context of information have changed substantially. In the past, life was simpler and the numbers of records kept were relatively small but nowadays unless one learns how to sieve it through communication and application of technological devices such as internet, comprising computer network, hardware, software, satellite system, radio and television, cellular phones, projector, computer board among others.

The objectives of Information and Communication Technology in this context is to improve, develop both teacher and student of Yoruba migrated indigenes of Lagos State in Diaspora in such a way that will contributes to a higher quality of educational standard which can produce a better informed citizenry and higher quality workforce that can advance the economic and social development of a country in this present day world for Yoruba migrated indigenes of Lagos State wherever they are around the world. In achieving the above, improving the quality of education through the diversification of contents and method, promoting experimentation, innovation, the diffusion and sharing of information and best practices as well as policy dialogue are UNESCO strategic objectives in education (UNESCO, 2012). This is because Information and Communication Technology, (ICT) have become key tools and have a revolutionary impact on how we see the

world and how we live in it. The impact is also felt on educational methodology in a complex society like Nigeria.

The need to continually improve the standard of self-development for teachers and professional development for migrated Yoruba indigene of Lagos State in Diaspora and also the education system would among others require communication technology literacy not only this but the application of various kinds of educational software in Information Technology in the teaching and learning process. More so, the case of using ICT for teaching and learning among the Yoruba migrated indigenes of Lagos State pose a threat, hence, teachers need to learn the know how to plan and integrate ICT into classroom activities and school environment. Also, the need to proffers a lasting solution to challenges and factors affecting the use and integration of information and communication technology among migrated Yoruba migrated indigene of Lagos State in diaspora where ever they are for teaching and learning, professional and national development becomes a matter of concern and its imperative in lining up with global standard.

This study is significant to all stakeholders in education, particularly to the Lagos State Migrated Yoruba indigene who are undergoing teaching and learning process across the globe or any continent of the world where they found themselves on the important and usefulness of planning and integration of Information and Communication Technology to teaching and learning so as to return home to impart their homeland via inculcation of the skills, instruction, provisions and giving back to their homeland those knowledge they might have acquires to teachers, learners and the educational system at large.

Thompson and Basil (2013) postulated that, Information and Communication Technology includes the hardware and software used to retrieve, process and transmits data. Abdelgadir, (2020) also sees information and communication technology as electronic processing information using computer based system for data gatherings, manipulations software's like Microsoft word, internet services, networking and so on. The use of ICT has brought a tremendous change to the world and human activities generally. However, it is very unfortunate that some stakeholder in education has not fully realized the impact of ICT in the educational sector. This condition is most felt in some, hence, its non-adoption and utilization in teaching and learning. ICT can be defined as knowledge shared between and among people from any location especially through the computer which is an electronic device (Oshun, 2007). Lachs (2010) suggest that power point which is a window program in computer could be used for creating small slide show/presentation. Also, that desktop publishing programme could be used for making multimedia posters.

On the other hand, Development involves the activity or task of improving upon an already existing phenomenon. According to Olisa and Obiukwu (1992), development involves strategy designed to improve economic and social lives of the people. Development therefore constitutes the process of planned change for

which one approach or the other is adopted for the improvement and or transformation of the lots of the people.

Meanwhile, integration is the process and application of two or more element or force to achieve a developmental result. In this study it is seen as creating a nexus or synergy between two or more elements. That is, application of information communication technology to teacher's education and professional development towards effective and efficient teaching and learning process in meeting the global practices for standardize education system for migrated Yoruba migrated indigenes of Lagos State in Diaspora. Many research results have shown that ICT integration was not a simple application but a necessity to contribute to the learning process of the students. (Cartrwright & Hammond, (2013); Herzig, (2014); Lim and Ching, (2014); Lim et al, (2013); Roblyer, (2018). Thus, the answer given to the question on "How ICT should be used in the teaching and learning process in contributing to the learning of the student?" becomes increasingly important. The answers given to this question may vary according to two points of view on the integration process. The first is the technological point of view, which supports the integration of technological infrastructures and systems into the educational environment; the second is the pedagogical point of view, which supports the integration of ICT materials and programs in terms of social constructivist learning principles (Richards, 2016). The convergence of pedagogical and technological points of view supports effective connections between suitable technology for content and pedagogical principles to design learning environments.

Equally too, teacher education is a programme that is related to the development of teacher proficiency and competence that would enable and empower the teacher to meet the requirements of the profession and face the challenges therein. According to Goods Dictionary of Education, Teacher education means, —all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the educational profession or to discharge his responsibilities more effectively. Teacher education encompasses teaching skills, sound pedagogical theory and professional skills.

The past decade has witnessed a fundamental change in the way people communicate as well as do business. The new technologies have the potential to change the face of education: where people learn; how learning is delivered; the role of the teacher in the teaching process and the responsibilities of the learner in the learning process. This has placed educational systems under increasing pressure to planning the use ICTs to teach students the knowledge and skills they need in the 21st century globally. Lau and Sim (2018) state that teachers broadly agreed that proper planning and use of ICT makes teachers more effective in their teaching, more organized in teachers work and better able to meet the varying needs of their students. In general, teachers also broadly agreed that with the use of Internet and technology, their lesson plans are richer. However the idea of integrating ICT into teaching and learning creates a concern between pedagogy and technology. Teachers are required to use technology in lesson delivery, it is important that technology becomes part of their training.

Figure 1. ICT integration for Teacher in Training.

There is the need to examine the relation between techniques, knowledge and set of instructors" skills which is related to the application of ICT use in the classroom. As computer studies (integral part of ICT courses) have become part of the national curriculum, the pedagogical practices of the teacher in the classroom becomes affected. Technology is a means for improving education and not an end in itself. Wang, (2018) postulate that, Computer integration in the classroom is the application of technology to assist, enhances, and extends student knowledge. Kashorda, (2019) state that the use of ICT in education has the potential to enhance the quality of teaching and learning, the research productivity of teachers and students, and the management and effectiveness of teachers in the institutions. However, ICT in education means more than just teaching students how to use computers.

Thus, ICT should also be used to promote information literacy, with the capacity to access, use and appraise material from various sources in order to enhance learning events to solve difficulties and to create awareness. Technology literacy is totally different from being able to integrate technology into teaching to enhance learning. In other words, doing "digitally fluent" means not only know how to use the technological tools, but how to construct things of significance with those technological tools. Teachers do not only need to learn about technology, but they need to learn how to use technology to enhance their learners" understanding and critical thinking skills. Enhancing basic information and communication skills like speaking, reading and writing, should rather be the focus of using ICT in education, but not simply being ICT literate. Omwenga, (2016), presupposes that a wide range of learning technologies should be selected and incorporated into educational programmes and that technology integration should consider learning pedagogy, the pattern of student use of ICT, and the extent of use in teaching and learning programmes. Omwenga further mention that e-learning is an example of the use of these ICT supported teaching and learning methods whose use in educational institutions is gaining momentum with the passage of time globally. Manzuoli, and Cifuentes, (2019), opined that teachers acknowledge on ICT"s as tools for building knowledge mediated by

collaborative activities that are relevant for participation in future society and guide towards an authentic problem. Teachers collaborating among themselves are important as it provides the platform to contribute to the pedagogical uses of ICT‟s in the classroom. Joy and Ishikaku, (2020), stated that, teacher education is neither mere pedagogy nor acquisition of training qualification. Globalization and shift to a knowledge based economy require that educational institutions develop in the individual the ability to transfer information into knowledge and to apply the knowledge in dynamic cross-cultural contexts. Majumdar, (2016) says that merely learning ICT skills is not enough but using the ICT skills to improve the teaching and learning is the key for pedagogy-technology integration. But the question is how can we combine these two? As it is now the situation seems to be left to the discretion of the teacher concerned. Thus an innovative teacher will use images, play video of real time situation or even animate objects to explain critical concepts. Practicing teachers must use whatever knowledge they gained from ICT integration courses. This can be attained by incorporating these practices within the classroom and avoid the risk of losing the acquired knowledge.

The following hypothesis serves as guides to this study

i. There is no significant relationship between Information and Communication Technology and teaching and learning outcome of Yoruba Migrated Indigene of Lagos state in Diaspora

ii. There is no significant relationship between Information and Technology and teaching effectiveness of Yoruba Migrated Indigenes of Lagos State in Diaspora

There is no significant relationship between teacher and student accessibility to Information Communication Technology and productivity of Yoruba Migrated Indigene of Lagos State in Diaspora.

2.   Methodology

This study adopted a descriptive correlation design. The design is considered the most appropriate, since the study presents relationship analysis by comparing the integration of information technology and teachers' education professional development of Yoruba Migrated indigenes of Lagos State in Diaspora. The population of this study consist of all Yoruba migrated indigenes of Lagos State in the six continents of the world which includes Africa, Europe, Australia/Oceania, America (North and South), Asia and Antarctica. A systematic and purposive random sampling technique was adopted by the researcher for this study in selecting 50 respondents that were Yoruba migrated indigenes of Lagos State from each of the six continents making a total of 300 respondents selected as sample for the study. A self-design research instrument titled "Planning and Integration of Information Communication Technology on Teachers Education and Professional Development for Migrated Yoruba Indigenes of Lagos State In Diaspora Questionnaire" (PLICTTEPDMYILSQ) was developed by the

researchers to obtain data for the study after an extensive review of the related literature. The questionnaire consists of two sections A and B. Section A was use to elicit demographic data of the respondent while section B contained 15 items using the four-point Likert scale type with the scoring scale as follows: Strongly Agree – 4, Agree – 3, Disagree – 2 and Strongly Disagree - 1. Also interview were conducted through Skype, emails and online to sample the opinion of some of the respondents about the study.

Furthermore, face, and content validity of the instrument was established by expert in the field of Educational planning and policy and Test, Measurement and Evaluation department to establish the suitability and appropriateness of each item and the adequacy of the instrument. Their useful comments, corrections and suggestions for improvement were taken into consideration in preparing the final survey instrument for the study. The instrument was administered to 25 Yoruba migrated indigenes within the sub-Saharan African continent of the area of study that do not form part of this study. After two weeks, the same survey instrument was again administered on respondent. Thereafter, the test-re-test reliability coefficient was analyzed using the test retest reliability method and 0.71 Coefficients was obtained. This high positive reliability coefficient was indications on proof of the reliability of the designed instrument.
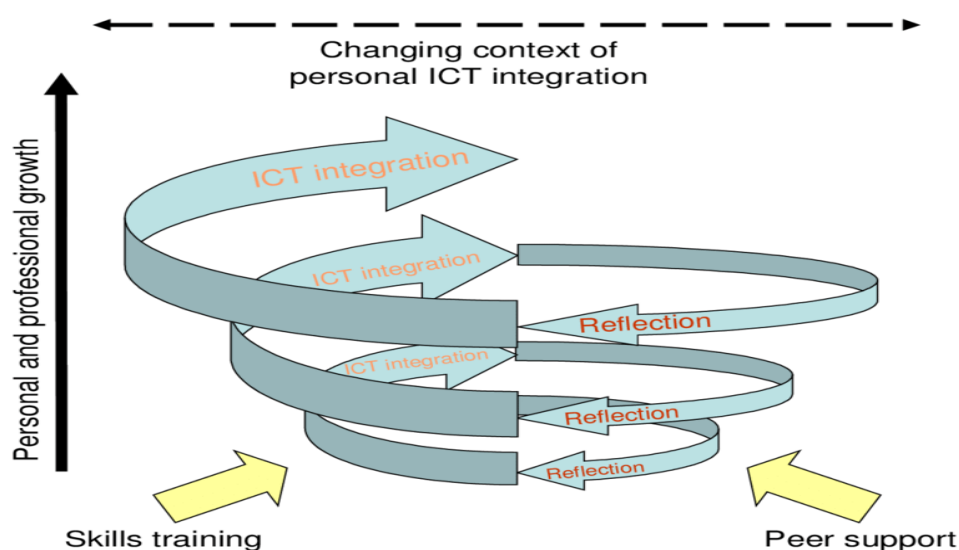

Figure 2. Integration of ICT for Teachers Professional Development Programme

3.   Results and Discussion

Test of Hypotheses

Hypothesis One

There is no significant relationship between Information Technology and teaching and learning outcome of Yoruba Migrated Indigene of Lagos State in Diaspora.

Table 1. A Table Showing Result of Relationship between ICT and Teaching and Learning

Correlation	ICT	Academic Purpose
Information Communication Technology Pearson Correlation	1	-.203**
Sig. (2-tailed)		.004
N	300	300
Teaching and Learning Outcome Pearson Correlation	-.203**	1
Sig (2-tailed)	.004	
N	300	300

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

Table 1, shows a negative relationship exists between Information Communication Technology and teaching and learning outcome of Yoruba Migrated indigene of Lagos State in Diaspora. Comparing 0.04 level of significance with 0.01 level of significance showed in the result, (r = -0.203; p < 0.01) indicating a significant relationship between the two variables. Hence, the hypothesis which states that there is no significant relationship between Information Technology and teaching and learning outcome of Yoruba Migrated indigene of Lagos State in Diaspora is not accepted.

Hypothesis Two

There is no significant relationship between Information Technology and teaching effectiveness of Yoruba Migrated Indigenes of Lagos in Diaspora.

Table 2. Showing the result of the Relationship Between ICT and Teaching Effectiveness

Variables	ICT	Teachers' Effectiveness
ICT Pearson Correlation	1	.320**
Sig. (2-tailed)		.000
N	300	300
Teaching' Effectiveness Pearson Correlation	.320**	1
Sig (2-tailed)	.000	
N	300	300

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

Table 2 shows that there is a significant relationship between Information communication Technology and teaching effectiveness of Yoruba Migrated Indigenes of Lagos State in Diaspora. This is because the result (r=.320; p<0.01) show a relationship between the two variable, comparing 0.000 level of significance with 0.01 educational statistics significant level. Thus, the hypothesis which states that there is no significant relationship between Information Technology teaching effectiveness of Yoruba Migrated indigenes in Diaspora is not accepted.

Hypothesis Three

There is no significant relationship between teacher and student accessibility to Information Communication Technology and their productivity among Yoruba Migrated Indigene of Lagos State in Diaspora.

Table 3. Showing the Result of the Relationship between Teachers' Accessibility To ICT and Their' Productivity

Variables	Teachers' Accessibility to ICT	Teachers' Performance
Student and Teacher Accessibility to ICT Pearson Correlation Sig. (2-tailed) N	1 300	.148* .039 300
Productivity Pearson Correlation Sig (2-tailed) N	.148* .039 300	1 300

** Correlation is significant at the 0.05 level (2-tailed)

From Table 3, the data analyzed shows a positive relationship exists between teacher and student accessibility to Information Technology and their productivity among Yoruba Migrated Indigene of Lagos State in Diaspora. Comparing 0.039 level of significance with 0.05 level of significance showed in the result, (r = 148; p < 0.05) indicates a significant relationship between the two variables. Hence, the hypothesis which states that there is no significant relationship between Teacher and student accessibility to Information communication Technology and their productivity among Yoruba indigene is not accepted.

Discussions of Findings

From the computation and analysis of the data derived for the study from the tested hypotheses, it was discovered that a significant relationship exists between Information Communication Technology, teaching and learning outcome of Yoruba migrated indigenes of Lagos State. The most common use of the Internet in teaching and learning by teacher and student is for information, examination and uploading of course work in preparing paper and teaching materials, training and word processing, with most of the respondents indicating this use as shown on Table 1, This is similar to the findings of Lau and Sim [2018] where the teachers reported making frequent use of ICT, either daily or weekly for teaching and instructional support, with frequently use of ICT for communication with peers for a better learning outcome. The findings have shown that use of ICTs and its integration in the teaching and learning is getting more widespread; and its use more pervasive among teachers as a means of communication and for information searching being common which facilitate teaching and learning outcome.

The second findings revealed from Table 2 shows that a significant relationship exists between Information Communication Technology and teaching

effectiveness. This finding is in line with that of Lau and Sim (2018) which state that teachers broadly agreed that use of ICT makes them more effective in their teaching, more organized in their work and better able to meet the varying needs of their students in learning. In general, teachers also broadly agreed that with the use of Internet and technology, their lesson plans are richer, students understand better and faster with global practices. It also agree with that of Wang, (2018) which states that, Computer integration in the classroom is the application of technology to assist, enhance and extend teacher and student knowledge. Kashorda, (2019) also state that the use of ICT in education has the potential to enhance the quality of teaching and learning, the research productivity of teachers and students, and the management and effectiveness of teachers in the institutions.

Lastly, the findings from the third hypotheses in Table 3 revealed that a significant relationship exists between Teacher and student accessibility to Information Communication Technology and the productivity of migrated Yoruba indigenes of Lagos State in Diaspora. Using the Pearson correlation statistical analysis for a 0.05 two-tailed significance test, it is seen that student and teacher levels of access to computers, internet and information technology is positively linked to their basic Information and Communication Technology literacy skills as reported by this study. This study agrees to that of Kashorda, (2019) which state that the access to ICT in education has the potential to enhance the quality of teaching and learning, productivity of teachers and students, and the management and effectiveness of teachers in diaspora.

4.   Conclusion

The issue of ICT integration on teacher education is a continuous and comprehensive process of applying technology to the curriculum to enhance teaching and learning. The success of planning and integration of information communication and technology depends not only on the availability of technology, but also on the pedagogical changes. There are other factors which include access time, training and retraining, attitude, leadership, and probably evaluation. These issues have a significant effect on the effectiveness of ICT planning and integration. Empirical evidence from the findings of this study reveals the nexus between Information Communication Technology and teacher's professional development for teaching and learning of migrated Yoruba indigenes of Lagos State in Diaspora. There is a clear significant relationship between ICT and teaching and learning outcome, teacher's effectiveness, teachers and productivity. Hence, it is clearly spelt out at this point that among all other thing for teacher education and professional development, orientation and reorientation should be geared globally again and again towards ICT education as a course of study and a prerequisite of pedagogical training of teachers and student in the right direction, since it can reinforce the feeling of competence, and raise the confidence level of learner across the globe.

Recommendations

The following recommendations were made for stakeholders in education which include

1. Yoruba migrated indigene of Lagos State practicing teachers in diaspora must be versed with the use technology to support their teaching such way that technology use is properly planned and integrated in every course and at every level. This will help build the confidence and develop the creative abilities among teacher-trainees globally"

2. There is the need for regular planning for in-service training for Yoruba migrated indigene educators and practicing teachers seasonally in updating their technology literacy skills in meeting with global standard.

3. Teachers education institutions should include technology training for all Yoruba migrated indigene of Lagos State as part of their curriculum from the first year to the final year before migrating to other continent. Hence, technology integration should be subject based and not as an isolated ICT or educational technology course.

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