



**The Observations of Pre-Service Teachers during Teaching Practice: A Case
for Serving Teachers to be Modelers of Practice**

By

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Abstract

In this study, some instructional activities of serving teachers in cooperating schools as observed by the pre-service teachers during their period of teaching practice were surveyed. This is to determine the extent to which service teachers could act as modelers of practice to the pre-service teachers, with respect to those activities. A purposive sample of 200 final year students (in both the NCE and degree Programme) of the College of Education, Agbor, was used for the study. A research question and two hypotheses guided the study. A structured (four – point Likert) questionnaire was constructed and validated (Cronbach alpha (α) =.65). The quantitative data collected was analyzed using descriptive statistics of weighted mean (M) and standard deviation ($s.d$). The results showed that generally the Pre-service teachers observed the serving teachers: (i) using charts/pictures/posters to teach ($M=3.6$), (ii) using variety of methods in addition to “chalk and talk” ($M=3.5$), (iii) using real objects as teaching aids ($M=3.2$), (iv) taking learners on nature walk ($M=2.7$) and (v) carrying out project work with learners ($M=3.0$). They did not observe them: (i) using the laboratory ($M=2.4$) and using ICT gadgets ($M=2.1$). The respondents posted to primary schools differed significantly from those posted to secondary schools in their observation on: (i) use of variety of methods of teaching $\{t=3.4; p=0.001\}$, (ii) Use of laboratory $\{t= -4.5, p=.000\}$; (iii) carrying out projects $\{t= -3.4, p=.001\}$ and (iv) Use of ICT gadgets $\{t= -2.5, p=.012\}$. The pre-service teachers who did their T.P in Public schools differed in their observations from those who were in the private schools in the following activities: (i) use of charts $\{t=3.6; p=.000\}$, (ii) taking learners on a nature walk $\{t=2.5, p=0.015\}$ and (iii) Use of laboratory in teaching $\{t= -2.2, p=.033\}$.

Based on the power of observation in acquiring practical skills such as pedagogy during teaching practice exercise, recommendations are made on how to obtain environment of cooperating schools which can give teacher trainees opportunity to observe and develop key instructional activities they should practice as professional teachers.

Keywords:Instructional Activities, Mentoring, Observation, Pre-Service Teachers, Serving Teachers, Teaching Practice.

Introduction

The importance of adequate teacher preparation is recognized in Nigeria's educational system as expressed in the national policy on education.

“In recognition of the pivotal role of quality teachers in the provision of quality education at all levels, teacher. Education shall continue to be emphasized in educational planning and development” p-28 (FRN, 2013)[10].

Teacher education is aimed at producing highly motivated conscientious and efficient classroom teachers for all levels of the nation's educational system, providing teachers with the intellectual and professional background adequate for their assignment and enhance their commitment to the teaching profession[10].

Colleges of Education are assigned the responsibility of producing teachers with the minimum qualification, Nigeria Certificate in Education (NCE), for entry into the teaching profession. In addition, Colleges of Education produce teachers with first degree, in affiliation with recognized Universities in Nigeria. The curricula for the preparation of teachers at NCE and degree levels are respectively prepared and the implementation is supervised by the National Commission for Colleges of Education (NCCE) and National Universities Commission (NUC) Both Curricula require that pre-service teachers (i.e. student teachers) undergo periods of teaching practice in the schools, at the level which they are prepared to teach, so as to acquire professional skills and knowledge in practical ways. The schools to which the students are posted are termed cooperating schools and they plan formidable roles in the overall success of the teaching practice exercise, especially in assessing and mentoring the students. In summary, the teaching practice period gives the student teacher the opportunity to:

- Apply their pedagogical knowledge and skills in practice in a school;
- Be mentored and assessed by trained supervisors (teacher educators) who visit them on schedule for up to four times or more within the periods ;
- Observe and be mentored by serving teachers (or cooperating teachers in the schools) with whom they relate closely during the period.

These serving teachers who usually spend more time with the pre-service teachers in the classroom, exercise great influence overtly and covertly on the student teacher as they observe their day-to-day activities in the classroom. In a normal and official setting, the serving teachers (especially the ones selected for the supervision) are seen as modelers of practice in a way (Clark et al, 2014)[6]. In some countries they are specially trained and certified for the job[6]. As modelers of practice, it is strongly expected that the pre-service teachers *observe* their teaching, as mentors and in many ways mimic their practice as they commence their own teaching experience. Their practice includes among others (such as tradition and authority) their technique or instructional activities. The teaching practice supervisor's toolkit specified that the teaching practice supervision is a mentoring process in addition to the assessment process (FRN, 2012)[10]. A major way of achieving mentoring is to be a role model who can be observed and be emulated by the mentors. The focus of this study is the pre-service teachers' observation of the instructional activities of the serving teachers they met in the cooperating schools, since it imparts their overall professional development.

Prior to the commencement of the teaching practice exercise, both the NCE and the first degree students take some courses on observation of schools in which they visit schools and observe and report on specific areas such as pupil-pupil/teacher-pupil interactions, physical and psychological environment of the classroom, stress management of the teacher, etc. (FRN, 2012)[11] and Delta State University (DELSU), Abraka, 2018[4]. These courses enable pre-service teachers to acquire the skill of observation, so as to learn from the varied interactions they would have within the teaching practice period. Learning from observation and interactions have been supported by many studies (Xu & He (2019)[24], Cohen & Manion (in Nakpodia, (2011)[16].

Specifically, Nakpodia (16) stated that teaching practice offered pre-service teachers the opportunity to engage in profitable experiences in *observing*, sharing, participating and in teaching with supervision of more experienced teachers (which includes the serving teachers in the schools). This study will focus on some key instructional activities which are important in enhancing teaching and learning in the basic education sector of the nation's educational system. To what extent did the pre-service teachers observe the practice of those activities by the serving teachers in the school?

Theoretical Background to the Study.

The national policy on education stipulates that teaching at the basic education level shall be participatory, exploratory, experimental and child-centred

(FRN, 2013)[10]. This quality of teaching can be delivered by teachers who exhibit a sound knowledge of the subject matter, create opportunities for active learning through variety of methods (such as role play, songs and dance, demonstration, experiments, etc.), provide and use appropriate instructional materials so as to deliver a good lesson (FRN, 2012)[12]. The basic education curriculum specifies variety of activities teachers should engage learners to make them learn certain concepts easily (FME, 2013)[9]. Activities such as nature walk, projects; improvisation, etc. are strategies suggested to evolve child-centred lessons. Furthermore, it is required of the basic teachers to be ICT trained so that they can teach the information technology (IT) component of the revised basic education curriculum [9], and be able to use ICT in the classrooms. If the serving teachers are practicing the full implementation of the requirements of the revised basic education curriculum, they should exhibit the activities of using variety of teaching methods (not only the “chalk and talk” method), variety of teaching aids, use laboratories for experimental teaching, use ICT at that level of teaching, which can be observed, and copied by pre – service teachers. It is against this background that the instrument for this study is designed to measure the degree to which pre-service teachers observed the exhibition of the instructional activities as they interacted with the serving teachers during their teaching practice period.

Research Questions and Hypotheses

1. To what extent did the pre-service teachers observe the serving teachers:
 - i. Using posters/pictures/charts and real objects to teach some lessons?
 - ii. Using variety of methods (e.g. songs, poems, nature-walk, project) to teach their lessons?
 - iii. Using the laboratory to teach?
 - iv. Using ICT gadgets (of any type) to teach some lessons
2. There is no significant difference between the observation of pre-service who are categorized as these posted to:
 - i. Primary and secondary schools
 - ii. Private and public schools.

Methodology

A simple survey research design is adopted in which what the students have already observed is obtained and assessed in a case study of College of Education, Agbor, Delta State, Nigeria.

The population consists of all students in both NCE and degree Programmes who had completed their teaching practice exercise in the 2017/2018 academic

session. They constituted the final year students of 2017/2018. These students spent not less than one semester in their schools of teaching practice and are expected to have observed the instructional activities of the serving teachers within the period. They are usually posted to schools in Delta State of Nigeria.

A purposive sample of two hundred (200) students were eventually used for this study based on their availability during the time of data – collection and the returned forms were filled correctly and the inclusion of students posted to primary/secondary, public/private school.

A ten – item structured (likert – type) questionnaire was constructed and validated. After validation the items were revised and one item discarded. Finally, a nine-item questionnaire was used. The questionnaire called for anonymous response so as to encourage honesty in responding to the items. The first part of the questionnaire called for the level of school (primary or secondary) and the type of school (private/public) of teaching practice. The remaining seven items were used to obtain the degree of observation on the instructional activities of the serving teachers: the use of chart/picture/poster; the use of variety of teaching methods; the use of real objects as teaching aids; taking learners out on nature walk; use project methods/activities; use of laboratory and use of ICT gadgets.

The reliability index is determined by obtaining the internal consistence of the items using Cronbach alpha statistics. The value obtained is .65 which is judged as high enough for the use of the instrument for the study (Tavakol & Dennick, 2011)[23].

Collection of Data: This final year students are all available on campus by the second semester. The questionnaire was administered to them in the second week of the second semester when reasonable number of them had come back to lectures. By this time it is expected that they would not have forgotten major experiences (including their observations) during the teaching practice period.

Analysis of data: The questions are answered by computing the weighted means M and standard deviations from the responses. The degree of observation on the scale were rated strongly agree (4); Agree (3). Disagree (2) and strongly disagree (1). If the mean M is less than 2.50, on the 4-point scale, then the observation of the pre-service teachers not significant. This means they did not observe that activity being performed. If the mean M is greater than 2.50, then they observed the performance of that activity by the serving teachers to a significant extent. The hypotheses are tested using the t-test for differences in the mean values from

independent groups, at 0.05 level of significance. The statistical package for social sciences (SPSS) was used to analyze the data.

Statistical Analysis

Table 1. Observation of Serving Teachers' Instructional Activities.

s/no	Instructional Activity	Mean (M)	Standard Deviation	Significance
i	Use of charts/pictures/posters	3.6	0.7	*
ii	Use of variety of methods	3.5	0.6	*
iii	Use of real objects	3.2	1.0	*
Iv	Taking pupils out for nature walk	2.7	1.2	*
V	Use of laboratory	2.4	1.2	
Vi	Carry out project activities	3.0	0.9	*
Vii	Use of ICT gadgets	2.1	0.9	

*M> 2.5

Table 2. T-test Differences in Observations of Pre-Service Teachers' in Primary (1) and Secondary (2) schools.

s/no	Instruction Activity	Group	Mean Value (M)	t-value	Standard Error (S.E)	Significance (p)
I	Use of charts	1 2	3.5 4.0	-1.6	0.258	.113
Ii	Variety of methods	1 2	3.5 3.0	3.4	0.159	.001*
Iii	Use of real objects	1 2	3.4 4.0	-1.9	0.283	.062
Iv	Nature walk	1 2	2.8 3.0	-0.4	0.403	.684
V	Use of laboratory	1 2	2.2 4.0	-4.5	0.391	.000*
Vi	Project work	1 2	2.9 4.0	-3.4	0.318	.001*

Vii	Use of ICT gadgets	1	2.2	-2.5	0.296	.012*
		2	3.0			

N (1) = 158 N (2) = 10, df = 166

*Significant at 0.05 level.

Table 3. T-test for Differences in Observations of the Pre-Service Teachers' in private (2) and public (1) schools.

s/no	Instructional Activity	Group	Mean Value	t-value	Standard Error	Significance
I	Use of charts	1	3.8	3.6	0.13	0.000*
		2	3.3			
Ii	Variety of methods	1	3.4	-0.7	0.81	0.514
		2	3.5			
Iii	Use of real objects	1	3.6	1.8	0.14	0.070
		2	3.3			
Iv	Nature walk	1	2.9	2.5	0.19	0.015*
		2	2.5			
V	Use of Laboratory	1	2.1	-2.2	0.19	0.033*
		2	2.5			
vi	Project work	1	3.0	0.9	0.16	0.392
		2	2.8			
vii	Use of ICT gadgets	1	2.2	-1.9	0.15	0.057*
		2	2.5			

N (1) =94

N (2) = 64,

df = 156

*Significant at 0.05 level.

Results

1. The results in table one showed that generally the pre-service teachers observed that the serving teachers:

- i. Used charts/pictures/posters in teaching some lessons, ($M = 3.6$).
- ii. Used variety of methods other than “chalk and talk method ($M= 3.5$).
- iii. Used real objects as teaching aids ($M= 3.2$).
- iv. Took learners out for nature walk ($M= 2.7$).

- v. Carried out some project with learners ($M= 3.0$).

These mean values are higher than the criterion value of 2.5.

- 2. The pre – service teachers did not observe that the serving teachers:

- i. Performed activities in the laboratory with learners ($M= 2.4$).
- ii. Used ICT gadgets in the process of their teaching ($M= 2.1$)

The mean values for these activities are lower than the criterion value of 2.5.

- 3. On the average the levels of observation of the pre-service teachers who were posted to secondary schools for their teaching practice for the; use of charts, ($M= 4.0$); use of real objects ($M = 4.0$); and taking learners around for nature walk ($M = 3.0$) are more than that of those posted to primary schools ($M = 3.5$); ($M = 3.4$) and ($M = 2.8$) respectively. The differences were not statistically significant ($t(166) = -1.6$, [$P= 0.113$]; -1.9 , [$P=0.062$]; -0.4 , [$P= 0.684$] respectively.

- 4. The average level of observation of pre-service teachers posted to the primary schools on the use of variety of methods of teaching was higher ($M = 3.5$) than that of those posted to the secondary schools ($M = 3.0$) and this difference was significant at 0.05 level ($t(166)= 3.4$, [$p = 0.001$]).

- 5. The average levels of observation of pre-service teachers posted to secondary schools were higher for: the use of laboratory ($M = 4.0$); carrying out projects with learners ($M = 4.0$) and use of ICT ($M = 3.0$) than that of those posted to primary schools ($M = 2.2$); ($M = 2.9$); ($M = 2.2$) respectively. The differences were also significant at 0.05 level ($t(166) = -4.5$, [$p = .000$] = 3.4 ; [$p= 0.001$]; -2.5 , [$p= 0.012$] respectively.

- 6. The results in table two showed that the use of charts ($M = 3.8$) and taking pupils for nature walk ($M = 2.9$) were observed more in public schools than in private schools $M = 3.3$ and $M = 3.5$ respectively. The differences are statistically significant ($t(156) = 3.6$, [$p= 0.000$] and ($t(156) = 2.5$, [$p= 0.015$]). The pre-service teachers in the public schools observed more of the use of charts and taking pupils for nature walk than those in the private schools.

- 7. Generally, the pre-service teachers in the private schools observed more of the use of laboratory ($M = 2.5$) than those in public schools ($M = 2.1$) and the difference is significant ($t(156) = -2.2$, [$p= 0.033$]).

- 8. Although the use of variety of methods ($M = 3.5$) and the use of ICT ($M = 2.5$) were observed more by pre-service teachers in the private schools than those in the public schools ($M = 3.4$) and ($M = 2.2$) respectively, the differences were not significant ($t(156) = -0.7$, [$p= 0.514$], $t(156) = -1.9$, [$p= 0.057$]).

9. On the average, pre-service teachers in the public schools observed more of the use of real objects in teaching ($M = 3.6$) and carrying out projects with pupils ($M = 3.0$) than those in private schools ($M = 3.3$) and ($M = 2.8$) respectively. The differences were not significant ($t(156) = 1.8$, $[p = 0.070]$; $t(156) = 0.9$, $[p = 0.392]$).

Discussion of Results

The results are discussed in three parts: the instructional activities observed generally by the pre-service teachers', the differences in their observations with respect to the level of schools (primary or secondary) they were posted and with respect to the type of schools (public or private) they were posted in line with the research questions and hypothesis of this study.

The Instructional activities generally observed by the Pre-service teachers.

Generally, the Pre-Service Teachers observed to a significant extent the use of charts/pictures/posters and real objects as teaching aids in the schools. In addition to the use of variety of methods of teaching including nature walk and project work. Their observations portray reality of the situation in the primary schools where charts, pictures and real objects are the common teaching aids used because they are more affordable. Several studies investigating the availability and use of teaching aids in basic education schools in Nigeria obtain results which support these observations. In one of such studies, Santos (2019)[21] found out that visual materials like chalk and chalkboard, charts, pictures and posters are available and often used in the sample of primary schools in Rivers. State of Nigeria. Shri (2013)[22] found out from the study of teaching learning materials used in upper primary schools, that low – cost materials, such as pictures, diagrams and charts are more common. At the basic education level, (especially the lower and middle basic), the pupils' vocabulary has not developed enough to understand lectures (or chalk and talk) method used by a teacher in the classroom. At that level (which is where majority of the pre-service teachers are posted), the teacher must employ variety of methods, like songs, poems, demonstration, etc., (as observed,)

to make them learn. Teachers often engage pupils in simple project activities like making kites, molding cups, spoons, etc. as observed by the pre-service teachers.

Another result is that they did not observe significantly the use of laboratory and ICT by the serving teachers. Again, this is the reality on ground in most basic education schools which has been corroborated by research results since the past decade. Adomi and Kpangban (2010)[1] found that the level of ICT adoption and use in Nigerian secondary schools is low. Maisamari et al (2018)[14] found that there was poor teachers' use of ICT to facilitate teaching and learning at the secondary school level in Kogi State of Nigeria. Olajide et al (2017)[18] obtained results which showed that on the average, teachers did not use laboratory facilities to teach students. Hence, they rarely engaged students in practical activities during regular lessons. Similarly, Aina (2012)[2] obtained results which revealed lack of Science laboratories in primary schools. These observations have implications for the realization of the practical, exploratory and experimental methods of teaching stipulated in the national policy of Education [10] when the laboratories are unavailable/not used by teachers at the basic education level. Furthermore, the poor use of ICT in teaching at the basic level is anti-thesis to the effective teaching of the information Technology (IT) component of the revised basic education Curriculum by ICT-trained teachers. Egede & Asabor (2020)[8] had recommended that instructional methods used in teaching IT. Components of the basic education curriculum should be ICT-based in which demonstrations with actual ICT gadgets are used.

Differences in the observations of pre-service teachers in the primary schools and that of those who were in the secondary schools

Out of the four aspects of instructional activities in which there are significant differences in the Observations, only use of variety of methods of teaching attracted higher mean from the primary schools. This is expected since teachers must use variety of methods, as explained earlier, to make learners active and able to understand at that level, unlike the secondary school level learners whose vocabulary had developed enough to learn from teachers' lecture (or chalk and talk) mode. It is also expected that use of laboratory, carrying out projects and use of ICT would be more with teaching at the secondary school level where teachers are more of degree – holders. Studies (Nwangwu, et al 2014) have shown that secondary school teachers lack adequate skills to make their students ICT literate. The situation at primary school level where teachers have lower

qualifications will be worse. The secondary schools of this study should be in the elite category, and since they are fewer in number, the overall use of ICT in schools as observed was how. As usual the use of charts, real objects and nature walk are equally observed in both primary and secondary school levels without significant differences. As stated earlier, these are affordable means of teaching which all levels of school could afford in the Nigerian System.

Differences in the observations of pre-service teachers in the public schools and that of those who were in the private schools.

The observation that the use of charts and nature walk was significantly more in public schools than in private schools is expected. As discussed earlier in this paper, charts are cheap and available/used in all schools in Nigeria. Often the compounds/environments housing public schools are more spacious than that of private schools, and endowed with abundance of living and non-living objects for effective nature walk method. That the use of laboratory was significantly observed more in private schools is also supported by the findings of Alimi et al (2012)[3]. Their study showed a significant difference in facilities available in public and private schools (in favour of the later). The result of this case study elucidates the standing difference between public and private schools in Nigeria in terms of facilities such as laboratories. Although their observation in the schools of this study is not satisfactory but it was observed more in the private schools. A stake-holder Yakubu, (2018) [25] in the educational enterprise of Nigeria wrote on this situation as follows.

“For effective teaching and learning to take place, facilities such as...laboratories, etc. are very necessary. Private schools ensure that these facilities are adequately provided... But these facilities are either not provided or are absolute in most public schools” p-1.

Use of variety of methods of teaching and real objects, carrying out project work are equally observed in both private and public schools without significant difference. These activities often depend on teacher quality and experience. (Omontoyinbo & Olaniyi (2019)[19]. Usually, the average number of teachers in the public schools, is more than that of private schools probably because Government can afford to pay more teachers (Bisi-Onyemaechi et al, (2018)[5].

Hence public schools have more experienced teachers who can use variety of methods comparable to the few number of teachers in private schools who tend to be committed due to more effective supervision.

Use of ICT: Although no significant difference was observed, but greater use is obtained from private schools. This is in line with the finding of Shri (2013)[22] that 80% of teachers in private schools use ready-made and appropriate teaching and learning materials as against 70% of teachers in public schools. It is also in line with the views of Yakubu (2018)[25], expressed earlier.

Implications of the observations of the Pre-Service Teachers in their Schools of Teaching Practice.

Granted that the pre-service teachers should learn some pedagogical skills from the serving teachers through observation [16], the results of this study imply that they will acquire varied levels of experiences depending on the school type and level. This accounts for the experience in which some students (especially the intelligent ones) struggle and opt to be posted to the staff model primary/secondary schools of the college so that they can learn from more experienced and dedicated teachers working in a rich school environment also. However, the onus is on the teacher educators to ensure that the environment of the schools of teaching practice of our students are rich enough (in terms of material and human resources) to provide them with the opportunity to acquire right skills. Hence teacher educators should be concerned with the state and status of the cooperating schools for teaching practice and choose the schools decisively based on the principles of opportunity to learn required skills they could offer to the pre-service teachers. Though the college exists to serve the host community – schools via the posting of teaching practice students, the schools should in turn be made to be committed to providing a learning environment so that the final products (which will also serve the community) are motivated, capable of adopting appreciable expertise in pedagogy and ICT to develop the intellectual capacity of students at the basic education level (College of Education, Agbor Mission) and/or highly motivated, conscientious and efficient classroom teachers who are ICT trained for the educational system (according to the goals of teacher education [10]).

Recommendations

Research results such as the one obtained in this study gives vivid picture of the variables that are playing out in the process of achieving the goals and the

missions of teacher education and teacher education institutions so as to know the direction in which they can be manipulated to achieve success.

1. Since an experience which is not available cannot easily be learnt, teacher education institutions should design and use a checklist of learning environment which cooperating schools should offer to qualify for students to be posted to them.
2. Cooperating schools should be properly positioned to give serving teachers the opportunity to be modelers of practice to the student teachers.
3. In the professional preparation of teachers, the one (1) year period of internship for newly qualified teachers (according to the national policy) should be implemented so that enough opportunity will be given to teachers to observe and learn from all experiences that span an academic year in the school system.
4. Since interpretation and use of the results of this study should be limited because it is a case study, a wider sample/population could be used to replicate this study.

Conclusion

The study surveyed the observation of pre-service teachers on seven specific aspects of instructional activities of serving teachers in their schools of teaching practice. The results; showed the aspects they observed significantly (use of charts/pictures/posters, use of real objects, nature walk activity, project work and use of variety of methods of teaching) and the aspects they could not observe significantly (use of laboratory and use of ICT gadgets). There were significant differences in the rating of the observations of those posted in primary and secondary schools on some of the activities (use of variety of methods, use of laboratory project work and use of ICT). Significant differences, was obtained for their observations on the use of charts, nature walk and use of laboratory when they are grouped with respect to the school type (public or private). On the basis of the power of observation in learning practical skills, and that serving teachers constitute part of the mentors for a teacher – trainee, it is concluded that the results have implication for achieving the goals of teacher education through the teaching practice exercise in cooperating schools.

References

- [1] Adomi, E. & Kpangban, E. (2010). Application of ICTs in Nigerian Secondary Schools. *Library of Philosophy and practice (e-journal)*. <https://digitalcommons.uni.edu/libhipprac/345>. Retrieved on 15-04-2020.
- [2] Aina, J.K. (2012). Challenges and Prospects of Primary Science Teaching in Nigeria *Continental Journal of Education*. 5(2) 9932-37.
- [3] Alimi, O.S., Ehinola, G.B. & Alabi, F.O (2012). Schools types, Facilities and Academic Performance of Students in Senior Secondary Schools in Ondo State, Nigeria. *International Educational Studies*. Vol. 5. No. 3.
- [4] Amankwah, F. Oti-Agyem & Sam, F.K. (2017). Perception of Pre-service Teachers' Towards the Teaching Practice Programme in College of Technology Education, University of Education, Winneba. *Journal of Education and Practice* (online), Vol 8. No. 4.
- [5] Bisi-Onyemaechi, A. I. et al (2018). Evaluation of the School environment of Public and Private Schools in Enugu to Ensure Child Health Promotion. *Nigerian Journal of Clinical Practice*. Vol. 21, Issue 2. Pp195-200.
- [6] Clark, A. Triggas, V. & Nelson, W. (2014). Cooperating Teacher participation in teacher education: A review of Literature. *Review of Educational Research*. 84(2). 163-202.
- [7] Delta State University, Abraka (DELSU) (2020). Programme & Staff Data.
- [8] Egede, B.A.J & Asabor, B.M. (2020). Integration of Information and Communication Technology into the training of Basic Education Teachers' in Nigeria: Issues, Challenges and Prospects. *Global Scientific Journals, Vol. 8, Issue 2*.
- [9] Federal Ministry of Education (2013) Revised 9 – Year Basic Education Curriculum, Abuja, NERDC.
- [10] FRN (2013). National Policy on Education Abuja. NERDC.
- [11] FRN (2012). Nigeria Certificate in Education Minimum Standards for Early Childhood and Care Education. Abuja, NCCE.
- [12] FRN (2012). Teaching Practice Supervisor's Toolkit: A Handbook for Teaching Practice Supervisors in Nigeria, Abuja. NCCE.
- [13] Gerges, G. (2001). Factors influencing Pre-Service Teachers' Variation in use of Instructional Methods" Why is Teacher Efficacy Not a Significant Contributor? *Teacher Quarterly*, Vol. 28, No. 4 pp. 71-88.
- [14] Maisamari, A.M.A., Ogwuche, V.O. & Ikwoche, F.I. (2018). Assessment of Secondary School Teachers' use of ICT in Ayingba Metropolis, Kogi State, Nigeria. *Journal of Education and Entrepreneurship*, Vol. 5, No. 1 pp37-47.

- [15] Mapolisa, T. & Tshabulala, T. (2014). Experiences during teaching practice. Perspectives of Zimbabwean Primary School Student Teachers'. *Journal of Educational Research and Studies*. Vol. 2(2) pp. 16-23.
- [16] Nakpodia, E.D. (2011). Teacher and the Student Practice Teaching Programme in Nigerian Educational System. *International Journal of Educational Administration and Policy Studies*, 2(3), pp33-39.
- [17] Nwangwu, B.C., Obi, C.C. & Ogwu, E.N. (2014). Integration of Information and Communication Technology (ICT) in the Curriculum of Federal Unity Schools (FUS) in Nigeria: Implications for Learning. *Greener Journal of Educational Research*, Vol. 4. Pp91-98.
- [18] Olajide, S.O., Adebisi, T.A. & Tewogbade, T.A. (2017). Assessment of Laboratory Resources Teachers' and Students' Involvement in Practical Activities in Basic Science in Junior Secondary Schools in Osun State, Nigeria. *Journal of Educational and Social Research*, Vol. 7, No. 3.
- [19] Omotoyinbo, D.W & Olaniyi, F. O. (2019). Quality of Teachers': Effective Teaching and Learning of English Language in Secondary Schools, Akoko North West Local Government Area, Ondo State. *Developing Country Study*, Vol. 9, No. 2.
- [20] Oparah, J.S. Nwoke, B.I. & Ikwanusi, E.N. (2017). Influence of Teaching Practice Exercise on Pre-Service Teachers' Professional Development. *OISR. Journal of Research and Method in Education*. Vol. 7. Issue 5. Pp34-39.
- [21] Santos, M. (2019). An investigative study on the availability and use of teaching aids in teaching mathematics in primary schools. <https://www.projecttopics.org/an-investigative-study-on-the-availability-and-use-of-teaching-aids-in-teaching-mathematics-in-primary-schools.html>. Retrieved on 15-04-2020.
- [22] Shri, K.M. (2013). Use of Teaching and Learning Materials in Science at Upper Primary School in Mandleshwar Kargone (Madhya Pradesh): An Analysis. *International Journal of Scientific and Engineering Research*. Vol. 4, Issue 2.
- [23] Tavakol, M. & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2 pp-53-55.
- [24] Xu, Y & He, L. (2019). How Pre-Service Teachers' Conceptions of Assessment change over Practicum: Implications for Teacher Assessment Literacy. <https://doi.org/10.3389/feduc2019.00145>. Retrieved 10/04/2020.

- [25] Yakubu, M. (2018). What differentiates private schools from public schools in Nigeria? *Itakeactions.org/blog/what-differentiates-private-schools-from-public-schools-in-Nigeria*. Retrieved on 15/04/2020.

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