

**PARENTAL PERCEPTION AND INVOLVEMENT IN VIRTUAL TEACHING  
AND LEARNING OF PRIVATE PRIMARY SCHOOL PUPILS DURING  
CORONA VIRUS DISEASE (COVID-19) ERA IN SOUTH-WESTERN,  
NIGERIA**

**Foluso Agnes AROWOJOLU<sup>1</sup>**

*Email: [folusoarowojolu@gmail.com](mailto:folusoarowojolu@gmail.com), 08065039887*

*Federal University of Agriculture, Abeokuta, Ogun State, Nigeria*

&

**Deborah Adepeju OYEGOKE<sup>2</sup>**

*Email: [iretripple@gmail.com](mailto:iretripple@gmail.com), 08034328444*

*Federal College of Education Special, Oyo, Oyo State, Nigeria*

**Abstract**

*This study investigated the perception and involvement of Private Primary School Pupils' Parents (PPSPP) in South-western, Nigeria on the effectiveness of virtual method of teaching the pupils. Descriptive survey research design was used for the study. Four research questions guided the study. The population for the study consists of all PPSPP in South-western, Nigeria. Purposive sampling technique was used to select 644 PPSPP whose children/wards participated in e-learning. The instrument used to collect data for the study is titled Parents' Perception and Involvement in Virtual Teaching and Learning during COVID-19 Era. The reliability of the instrument was 0.7. Descriptive statistics and t test were used to analyse the data. The result showed that PPSPP did not support virtual classes for their children. Also, there was no significant difference between male and female parents' perception about the use of virtual teaching and learning in primary schools. The study therefore, recommended that Primary school owners should explore effective means to teach primary school pupils during pandemic. Government should assist in improving on electricity and uninterrupted internet services.*

**Key words: virtual teaching, primary pupils, parents, covid-19**

**Introduction**

Virtual teaching is an on-line system that allows transfer of knowledge from teacher to learners through the internet by utilizing electronic devices such as computers, smart phones, I Pad, television and radio. Varying applications and social media were used as meeting point for the teachers and pupils/students to disseminate knowledge as well as to learn. Such applications are Zoom, Edmodo, Microsoft team, Google hangout, Google Classroom, Moodle, Evernote, Socrative, Kahoot, Seesaw, Educreations, dropbox, slack, Skype, face book, WhatsApp among others. Some schools have app-based versions of their web content which they made use of during the period of lockdown.

Again, virtual teaching is the concept of global transfer of method of learning through e-learning. During COVID-19, school owners switched from the traditional way of the use

of classrooms for teaching to virtual. With virtual teaching and learning, the teachers and the learners are physically separated. However, in order to teach, the teachers can share their screen with the pupils/students. Learning materials can be transmitted to the learners through internet as well.

In keeping with the dynamics of social change and the demands on education, there was need for the 4<sup>th</sup> edition of the policy on education where some policy innovations were spelt out. To this end, the Federal Government of Nigeria in 1998 updated the 3<sup>rd</sup> edition of policy in education. One of the innovations and changes that were included in the policy is the lifting of the suspension order on open and distance learning programme.

As a result of COVID-19, schools were locked down by the Federal Government of Nigeria and there were no clear-cut approaches to what school management could do to savage disruption of students'/pupils' learning in both public and private schools. In order to engage the students and pupils, some of the private primary schools that have the infrastructure/facilities in terms of technical and skilled personnel embarked on distance education strategies with the help of e-learning. Moreover, the pandemic has revealed the educational divide in Nigeria, there was digital divide between the students/pupils in different locations (urban, semi-urban and rural). It widened the gap between the rich and the poor. Many parents could not register their children for the on-line learning because they could not afford the cost of doing so, since it requires computer systems with internet facilities or android phones. Also, many parents could not afford browsing data. However, Garrison and Anderson (2003) emphasised that students need to be encouraged for participation, collaboration and sustaining presence in e-learning. Again, a debate about whether on-line learning is as good as the traditional method of learning has been on for a while which had resulted to different theories and models for on-line learning.

Nevertheless, on-line classrooms have a lot of advantages for primary pupils. It helps learners to be independent but it requires some level of parental assistance and involvement. It also helps learners to think. Maher (2014) highlighted the benefits of on-line learning for primary school pupils as: opportunity to develop: communication and collaboration skills, media literacy skills, it provides students authentic learning, authentic links to audience. It provides the opportunity for pupils/students to engage in learning that is embedded in social practice. Haythornthwaite and Nielsen (2006) stated that Computer-Mediated Communication (CMC) changes the exposure of individuals to the group as well as the immediacy of group characteristics to individual. They also noted anonymity and invisibility of physical attributes, local setting, distractions and side activities, anonymised group or audience, distribution in geographic space. Another effect is the locus of engagement according to (Haythornthwaite & Kazmer, 2002). Erickson and Herring (2010) concentrated on persistent conversation which includes instant messaging and voice chat.

However, as on-line learning has its advantages, it has its challenges. According to Maher (2014), some of the challenges are: inappropriate contact with people which can be in form of cyber bullying which is linked to face-to-face bullying. Other challenges are on-line grooming, cyber stalked also known as on-line harassment or on-line abuse. This is a situation whereby internet is used to instil fear in someone. Another challenge is inappropriate contact with content such as material with violent and sexual explicit, practice of sexing which encourages dangerous activities that can affect the students/pupils negatively.

Therefore, to surmount these challenges O'Neill and McLauhlin (cited in Maher, 2014) recommended that the teachers and the parents are supposed to work together to assist the children to safely learn on the internet. Again, Maher (2014) noted that the school, the teachers and the parents were expected to work together to help on-line teaching and learning to be successful. The school supposed to develop programme to support students and also provide information and links to useful learning resources for the parents in order to support the students. The teachers were expected to undergo training in order to be able to teach the contents in each subject, recognise any on-line problem while teaching is going on and effectively manage the process. Therefore, there is need for constant communication between the home and the school in order to support the students/pupils in on-line learning.

Primary education is referred to as elementary education. It is part of basic education in Nigeria. It is the foundation for other levels of education. If the educational foundation of a student is not good or sound, it will affect other levels. Primary School pupils are children within the ages of three and twelve. According to the (National Policy of Education (NPE), 2004), primary school education is divided into sections: pre-primary for children between ages 3-5 and primary education for children between ages 6 to 12 years. In the private primary school, the classes are divided into sections, these are preschool (kindergartens), nursery (nursery 1 and 2), lower primary (primary 1-3) and upper primary (primary 4-6).

Primary education has the roles to develop children's social, cognitive, cultural, emotional and physical skills. However, the evidence of these roles is based on the abilities of the pupils. It also affords pupils to have basic understanding of different subjects and various skills that the pupils will use throughout their lives. To realise these goals, the (NPE, 2004) empowered education stakeholders such as the government of the republic of Nigeria, the parents, interested individuals/organisations and communities to be involved in education.

Again, effective teaching methods must be used to teach the pupils at school. Theme (2018) lists six effective teaching skills that can be used to teach primary pupils:

- a) active listening – this method enables the teacher to describe activities and behaviours to the children while performing the action.
- b) Constructive feedback – students are praise for good attempt of a task. This encourages other children to emulate a child who has just been commended.

- c) Peer Teaching – This method aids the children to work together and assist each other. Children always show interest among themselves and when they are teamed together in joint work or project, they are encouraged to learn from each other.
- d) Task list – This is a technique used by the teacher to create classroom lists or task chart in order to track daily duties that need to be completed. This encourages the pupils to get along with one another, work together, development of self-esteem and communication.
- e) Behaviour Management – This is crucial to effective teaching learning at all levels of education. However, it is more important in the primary school. Due to the ages of the pupils, their attention span is very short. Therefore, it is necessary for the teacher to control the pupils so as to create equal chance for them to reach their potentials.
- f) Staying Educated – This is knowledge management on the part of the teacher. This has to do with making use of professional development. Teachers at all levels of learning must be updated on the trends and ideas in education. For example, COVID-19 has changed so many things in the field of education. Teachers who are not knowledgeable in Information Communication Technology (ICT) and can acquire new methods of teaching may lose their jobs. The biggest problem for any teacher is capturing each student's attention and imparting ideas effectively. A cursory extermination of all the methods of teaching primary pupils highlighted by Themes (2018) are not practicable in virtual teaching of primary pupils. This calls for a review of new methods of teaching the pupils through virtual means.

This study used the theory of Epstein's model of parental involvement theory which encourages school and family partnership

### **Parental Involvement in Pupils' Learning**

In education, parents play pivot roles to both the teacher and the child. They are partners to the teacher and the child. Parents are the first teachers to the child. According to Gestwicki (2007), parents are the first teachers that the child meets, they engage in informal teaching of the children. O'Neill and McLauhlin in Maher (2014) recommended that during virtual learning, the parents/guardian must be available to supervise the student/pupil in order to discourage distraction. Parental involvement in terms of providing a home learning environment is crucial to learning. Parents are supposed to help the pupils with the supervision of the assignment given to the pupils and also give the teachers update on pupils' assignment by calling the teachers or sending messages to the teachers and also assist the children in getting the learning resources from different websites that have been communicated to them by the school.

Some Psychologists are of the opinion that students' attention is very short such that many of the students cannot pay attention for more than 10 to 15 minutes while learning in a traditional class. It is noted that attention span varies based on motivation, mood, perceived relevance of the material among others. However, Bunce, Flens and

Neiles (2010) noted that attention span of students in a class varies between 1 minute or less and 6 minutes. The study suggests that student engagement alternates between attention and no attention as lecture proceeds. In order to keep pupils' interest and alertness, the traditional classes usually have two teachers who engage in team teaching in form of collaborative or alternative teaching. This became a practise in the primary school for effective teaching and mastery of content being taught.

Moreover, Bunce, Flens and Neiles (2010) carried out a survey on the effects of digital technologies on attention span of children and found that 87 of teachers of a sample of 2,500 believe that new digital technologies are creating distraction that encourages short attention span for the present generation while 64 of the teachers supports that digital technologies do more to distract students than to help them academically. Nevertheless, the digital technologies such as ipads or tablets were found to help students to study more efficiently and improved their performance.

According to Epstein (2001), there are six types of parent involvement which are recommended for a comprehensive program of school, family, and community partnerships. These include:

- a) Parenting: This encourages home conditions to improve learning, parental education activities, family support programs are some practice examples of this type. The effects of these for children are good and improved attendance, awareness of importance of school, and develop respect for parents (Epstein et al., 2002).
- b) Communicating: This is the effective two-way communication about school programs and children's progress. Parent-teacher conferences, clear information on school policies and programs. Epstein et al., (2002) stated that phone calls are some of the examples of communication. Some of the benefits for children are awareness of own progress, understanding school policies, and improving communication skills (Epstein et al., 2002).
- c) Volunteering: This involves parents' help and support at school, home, or other locations. Parents could help school's maintenance in the area of safety and operations of schools, assisting educators and helping other parents. Through those means, parents get involved in the success of the school. According to Epstein et al., (2002), volunteering activities of the parents such as tutoring of the children can help the children to improve on their communication skills and increase learning skills.
- d) Learning at home: This relates to providing information and ideas to families about how to help their children at home with their learning. For example, information on homework policies and how to supervise children, family reading activities at school are included in this involvement type.
- e) Decision Making: This has to do with having parents serve as representatives and leaders on school committees. PTA/PTO organizations and networks to link all parents with each other are examples of this type. Awareness of representation of families and understanding that student rights are protected are some of the outcomes for children (Epstein et al., 2002).

f) Collaborating with the community: This is defined as identifying and integrating resources and services from the community to improve school programs. Information on community activities and services that link to learning skills, participation of alumni in school, and service integration through partnerships with organizations such as civic, cultural, and health agencies in the community are considered as sample practices of this type of involvement. Increased skills and talents, and specific benefits linked to community programs are some of the results for children (Epstein et al., 2002). In the same vein, Desforges and Abouchaar (2003) identify parents' involvement in school activities such as ensuring availability of instructional materials, implementing curriculum and participating in administration.

Epstein (1997) stated that parents should provide verbal encouragement or positive interaction regarding school work. However, Kutelu and Olowe (2013), Pansiri and Bulawa (2013) note in their studies that parental involvement in provision of learning materials in primary school Nigeria and parental support in Botswana is low respectively. Moreover, (Williams, 1998) and Nord (1997) found that involvement of fathers and mothers in their child' or children's academic achievement is important. However, according to (Williams, 1998), mothers' involvement in their children's education showed a higher percentage of similar significant indicators than those for the fathers.

### **Statement of the problem**

Primary education is important because it is the foundation of education and it is also pertinent to having a solid educational foundation. However, schools at all levels of education were on lockdown for over five months during COVID-19 pandemic. Private primary School owners resolved to use on-line method to teach the pupils without putting into consideration the challenges of power supply, cost of providing data by parents, level of experience of the teachers in handling teaching virtually, the appropriate method of assessment of pupils at the completion of the content taught and parental involvement. Some of these indicators could not be substantiated because there was need to get to the school location and homes of pupils to carry out pedagogical observations, inspection and self-evaluation. However, some indicators could be assessed with the help of the parents, such as parental involvement and their perception about the conditions of virtual teaching and learning. In the light of the above, it is therefore, imperative to investigate the perspectives of parents on the process of teaching the pupils as well as parents' involvement in the virtual learning during the period that schools were on lockdown in the South-Western, Nigeria as a result of COVID-19.

The main goal of the of this study is to: assess Parental Perception and Involvement in Virtual Teaching and Learning of Private Primary School Pupils during Corona Virus Disease (COVID-19) Era in Southwestern, Nigeria. the perception of the Private Primary School Parents about the virtual teaching and learning during the period of COVID-19.

### **Research Questions**

Four research questions guided the study:

1. What are the parents' perception of virtual teaching and learning during COVID-19 in the South-western Nigeria?
2. What are the levels of parents' involvements in virtual teaching and learning during the period of COVID-19 in the Southwestern Nigeria?
3. Is there any significant difference between private primary school parental gender and perception of virtual teaching during COVID-19 in the South-western Nigeria?
4. Is there any significant difference between private primary school parental gender and their involvement in virtual teaching during COVID-19 in the South-western Nigeria?

### Methodology

The study adopted descriptive survey research design. The target population consists of all Private Primary School Parents (PPSP). Purposive sampling technique was used to select 646 PPSP whose child/ward participated in e-learning from the six states in the South-western, Nigeria. One hundred and Six (106) parents were selected from each state except Lagos State where one hundred and Fourteen (114) were selected.

**Table 1: Sample framework of Private Primary School Parents**

State	male	female	Total
Ogun	43	63	106
Oyo	43	63	106
Lagos	47	67	114
Osun	43	63	106
Ekiti	43	63	106
Ondo	43	63	106
<b>Total</b>	<b>262</b>	<b>382</b>	<b>644</b>

### Research Instruments

One instrument titled Parents' Perception and Involvement on the use of Virtual Teaching and Learning (PPIVTL) was used to collect data for this study. The questionnaire was designed to rate the parents, perception and involvement in the virtual teaching and learning particularly during COVID-19 lockdown. Prior to the development of the questionnaire, parents were interviewed to know their perception about the new method of teaching and learning. Information gathered were used to develop the questionnaire. Section A includes demographic information about the selected parent. Section B consists of 31 items to investigate parents' perception and involvement in virtual learning. Section B was divided into two segments: the first segment consists of 20 items that investigate parents' perception about the process of teaching and learning and the second segment consists of 11 items that investigate parents' involvement in the new method of learning during COVID-19. The perception of the selected sample were rated on the Likert scale which was simplified under some items on a five point scale described under 1 = undecided, 2 = strongly disagree, 3 = Disagree, 4 = Agree and 5 =

Strongly Agree while parental involvement was described under 1= I do not know, 2= Not true of me, 3= Almost true of me, 4= True of me and 5= Very true of me. The scoring of negatively structured items was in the reverse.

The scale was validated using alpha and the reliability coefficient was 0.7. descriptive and inferential statistics were used to analyse the data. R package version 4.0 and SPSS version 23 were employed as method of analysis.

## Results

**Research Question 1:** What is the perception of private primary school parents on virtual teaching and learning during COVID-19 pandemic in the South-Western, Nigeria?

**Table 1: Perception of Private Primary School Parents on Virtual Teaching and Learning during COVID-19 Pandemic**

S/N	Item Description	SA	A	SD	D	U
1	Virtual method of teaching and learning is a mere waste of resources	12 (1.9)	119 (18.5)	143 (22.2)	180 (28)	190 (29.5)
2	Pupils learn faster on-line	299 (46.4)	201 (31.2)	12 (1.9)	84 (13.3)	48 (7.5)
3	Virtual method of learning is expensive	323 (50.2)	155 (24.1)	23 (3.6)	83 (12.9)	60 (9.3)
4	Internet accessibility is poor	191 (29.7)	191 (29.7)	72 (11.2)	96 (14.9)	94 (14.6)
5	Virtual learning should continue after corona virus is over	24 (3.7)	23 (3.6)	119 (18.5)	168 (26.1)	310 (48.1)
6	Pupils physical separation from their teachers is good for learning	72 (11.2)	179 (27)	84 (13.0)	156 (24.2)	153 (23.8)
7	Pupils are assessed during virtual learning	60 (9.3)	95 (14.87)	84 (13.0)	287 (44.6)	118 (18.3)
8	Assessment of pupils' performance is easy during virtual learning	96 (14.9)	108 (16.8)	83 (12.9)	192 (29.8)	165 (25.6)
9	Assessment of pupils' level of understanding after teaching is comprehensive	72 (11.2)	95 (14.8)	131 (20.3)	227 (35.2)	119 (18.5)
10	Pupils' practical work is evaluated in virtual teaching	72 (11.2)	142 (22.0)	107 (16.6)	132 (20.5)	191 (29.7)
11	Practical aspects of some subjects were taught in virtual classes	215 (33.4)	84 (13.0)	119 (18.5)	96 (14.9)	130 (20.2)
12	Virtual teaching is not good for children in the nursery section	96 (14.9)	262 (40.7)	59 (9.2)	119 (18.5)	108 (16.8)
13	Virtual teaching is good for pupils in the primary section	132 (20.5)	180 (28.0)	72 (11.2)	129 (20.0)	131 (20.3)
14	The quality of teaching in virtual classes is not enriched	334 (51.9)	132 (20.6)	83 (12.9)	24 (3.7)	71 (11.0)



15	The break in transmission during virtual teaching makes learning uninteresting	226 (35.1)	156 (24.2)	84 (13.0)	83 (12.9)	95 (14.8)
16	Virtual teaching and learning method encourage distraction on the part of the pupils	96 (14.9)	119 (18.5)	36 (5.6)	215 (33.4)	178 (27.6)
17	The quality of delivery of teaching is excellent	60 (9.3)	119 (18.5)	96 (14.9)	190 (29.5)	179 (27.8)
18	The time allotted for teaching each lesson is adequate	96 (14.9)	190 (29.5)	47 (7.3)	120 (18.6)	191 (29.7)
19	The assignments given to the pupils were marked	179 (27.8)	154 (23.9)	72 (11.2)	84 (13.0)	155 (24.1)
20	At the end of each class, there were means for question and answer	262 (40.7)	155 (24.1)	72 (11.2)	48 (7.5)	107 (16.6)

Result presented in table 1 shows that private primary school parents who participated in the study had positive perception on virtual teaching and learning during COVID-19 pandemic in South-Western, Nigeria. This can be established in their responses to the items. The table depicts that the mean scores of the respondents in most of the items were above 3.0 except items 1, 5, 7, 8, 9, 10 and 17. The mean scores were below 3.0 which depict that the respondents did not support the items. The implication of this is that high number of private primary school parents had positive perception on virtual teaching and learning during COVID-19 pandemic.

**Research Question 2:** What is the level of involvement of private primary school parents on virtual teaching and learning during COVID-19 pandemic in the South-Western, Nigeria?

**Table 2: Involvement of Private Primary School Parents in Virtual Teaching and Learning during COVID-19 Pandemic**

S/N	Item Description	Very True of Me	True of Me	Almost True of Me	Not True of Me	I Do not Know
1	I ensure that my children take note during virtual classes	369 (57.3)	95 (14.8)	60 (9.3)	36 (5.6)	84 (13.0)
2	I spend so much money on data during virtual classes	380 (59.0)	84 (13.0)	96 (14.9)	24 (3.7)	60 (9.3)
3	I ensure there is power supply anytime the children are ready to join their teachers	287 (44.6)	130 (20.2)	72 (11.2)	120 (18.6)	35 (5.4)
4	I spend much money on the supply of alternative source of electricity	250 (38.8)	143 (22.2)	84 (13.0)	108 (16.8)	59 (9.2)
5	I supervise my children whenever virtual classes are going on	83 (12.9)	82 (12.7)	168 (26.1)	192 (29.8)	119 (18.5)

6	I do not have time to sit with my children whenever virtual lessons are going on	251 (39.0)	178 (27.6)	119 (18.5)	60 (9.3)	36 (5.6)
7	I ask my children the subjects they are taught daily	263 (40.8)	142 (22.0)	108 (16.8)	60 (9.3)	71 (11.0)
8	My children and I do discuss whatever subjects are taught in their virtual classes	215 (33.4)	71 (11.0)	106 (16.5)	180 (28.0)	72 (11.2)
9	I ensure I bought good smart phones for my children for the purpose of virtual classes	203 (31.5)	131 (20.3)	107 (16.6)	108 (16.8)	95 (14.8)
10	The charges for virtual teaching is high	48 (7.5)	48 (7.5)	107 (16.6)	274 (42.5)	167 (25.9)
11	I prefer virtual teaching to normal classroom.	48 (7.5)	48 (7.5)	107 (16.6)	274 (42.5)	167 (25.9)

Result in Table 2 shows that private primary school parents who participated in the study were deeply involved in virtual teaching and learning of their children during COVID-19 pandemic in South-Western, Nigeria. This can be seen in their responses to the items that were related to parental involvement. The table depicts that the mean scores of the respondents in most of the items were above 3.0 except items 1, 2, 6, 8, 9, 10, 11 and 18 that the mean scores were below 3.0. The implication of this is that many private primary school parents had positive perception on virtual teaching and learning during COVID-19 pandemic.

**Research Question 3:** Is there any significant difference between Private Primary school parental gender and perception of virtual teaching during COVID-19 in the South-Western Nigeria?

**Table 3: Perception of Male and Female Private Primary School Parents on Virtual Teaching and Learning during COVID-19 Pandemic**

Gender	Vars	N	Mean	S D	SE	t Value	df	P value
Male	1	262	69.21	9.31	0.58	1.0285	494.67	0.3042
Female	1	382	69.93	8.1	0.4			

**\*p is significant at 0.05**

The result in table 3 shows that there is no significant difference in the perception of male and female parents of Private Primary School in respect of Virtual Teaching and Learning during COVID-19 pandemic as reflected in the mean scores of the two groups. The result shows a mean score for the males' responses as 69.21 while that of female is 69.93. The p-value is also 0.3042 which indicates that p-value > 0.05. This indicates that we do not reject the null hypothesis.

**Research Question 4:** Is there any significant difference between Private Primary School parental gender and their involvement in virtual teaching during COVID-19 in the South-Western Nigeria?

**Table 4: Involvement of Male and Female Private Primary School Parents in Virtual Teaching and Learning during COVID-19 Pandemic**

Group	N	Mean	S D	SE	t Value	Df	P value
Male	262	32.32	5.22	0.32	-2.1201	627.24	0.03439
Female	382	33.51	8.96	0.46			

**\*p is significant at 0.05**

Table 4 shows that there is significant difference in the involvement of Private Primary School male and female parents in Virtual Teaching and Learning of their children/wards During COVID-19 Pandemic. The result shows a mean score for the males' responses as 32.32443 while that of female is 33.51309. The p-value is also 0.03439 which indicates that p-value < 0.05. This indicates that we reject the null hypothesis.

### Discussion

The findings of this study revealed that Private Primary School parents in South-Western, Nigeria have high positive perception about virtual teaching and learning. This position might have been made possible due to the declaration of self- isolation and lockdown which affected the schools from being opened for operation. The effect of the declaration by the federal government forced all the States to lockdown all public places. This made the parents and their children to stay at home. This also made it possible for the parents to be available at home to assist the teachers and the pupils during virtual teaching. Moreover, many parents saw the new method of imparting knowledge as a way of engaging the students during the period of the lockdown.

However, parents agreed that virtual method of learning is expensive, internet accessibility was poor and assessment of pupils were done as expected. Therefore, primary school managements should not continue to use the method to teach primary school pupils. Although, parents believe that it will improve the digital skills, increase knowledge and content retention of what their children/wards have learnt. These corroborate the submissions of (Maher 2014; Haythornthwaite & Nielsen 2006). They highlighted the benefits of on-line learning for primary school pupils as: provision of authentic learning, change in the exposure of individuals to the group and media literacy skills.

It was also observed that private primary school parents' involvement in virtual learning was very high in respect of provision of learning materials such as good phone which became one of the teaching aids. This is in tandem with the suggestion of Epstein et al., (2002) that parents should provide learning materials for their children and also communicate with the teachers on how to access learning materials in getting assignment

done. The study also revealed that the female parents were more involved in the on-line teaching and learning of the pupils than the male. This supports the findings of (Williams, 1998) which discovered that the involvement of female parents in pupils' education is higher than that of the male.

### **Conclusion and Recommendations**

In conclusion, if on-line teaching and learning effectively implemented by the schools and the parents have time to monitor and assist their children, it will reduce the number of hours used in the traditional class and pupils can learn under conducive environment in their homes and this will also reduce the rate of the spread or being infected with any virus diseases. Moreover, Nigerian pupils will be able to keep abreast with other pupils from the developed countries. However, there are some hindrances that frustrate the parents during the virtual teaching and learning, these are: poor internet service, epileptic power supply, high cost of getting alternative power supply, poor method of assessment of pupils after each lesson and the time that the lessons were fixed. Based on the above, the following recommendations are made:

1. Nigerian government should endeavour to improve on the power supply in the country.
2. Nigerian government should encourage the internet providers to improve on their internet services and also reduce the cost of buying data in the country.
3. The private school owners should factor the parents' involvement in the teaching of the pupils on-line in preparing their time table, therefore, they should make the time more flexible for the parents to be able to perform their role in assisting the pupils during on-line teaching.
4. Private school owners should invest in conferences and workshop for their teachers in order to be trained on how to conduct valid and reliable assessment of pupils during on-line teaching.

### **References**

- Bandara, I., Loras, F. & Maher, K. (2014). Cyber security concerns in e-learning education. Presented in: proceedings of ICERI 2014 conference, IATED, 07280734. Retrieved from [http://ecesm.net/sites/default/files/ICERI\\_2014.pdf](http://ecesm.net/sites/default/files/ICERI_2014.pdf). URL:
- Bunce, D.M., Flens, E.A. & Neiles, K.Y. (2010). How long can students pay attention in class? A study of student attention decline using clickers. *Journal of Chemical Education*, 87(12). Retrieved from <https://doi.org/10.1021/ed1000409.1438-1443>.
- Desforges, C. and Abouchaar, A. (2003). The impact of parental involvement, parental support and family education on pupil achievement and adjustment. *A literature review. DfES Research Report 433*.
- Epstein, J. L. (2001). *School, family, and community partnerships: Preparing educators and improving schools*. Boulder, CO: West view.

- Epstein, J. L., Sanders, M. G., Simon, B. S., Salinas, K. C., Jansorn, N. R., & Van Voorhis, F. L. (2002). *School, family, and community partnerships: Your handbook for action* (2nd ed.): Corwin Press.
- Federal Republic of Nigeria (2004). *National policy on education*. Nigerian Educational Research and Development Council, Yaba, Lagos.
- Garrison, D.R. & Anderson, T. (2003). *e-learning in the 21<sup>st</sup> century: A framework for research and practice*. New York, Routledge.
- Gestwicki, C. (2007). *Home, School and Community Relations*. (6<sup>th</sup> ed.) ; Thomason.
- Haythornthwaite, C. & Nielsen A.L. (2007). Revisiting computer-mediated communication for work, community and learning. *Psychology and the internet*, 167-185
- Haythornthwaite, C., Kazmer, M, Robins, J. & Shoemaker, S (2000). Making connections: community among computer-supported distance learners. *Proceedings of year 2000 of the Association for Library and Information Science Education Conference*. San Antonio, Texas.
- Kutelu, B.O. and Olowe, P.K. (2013). Level of parents' involvement in primary education in Ondo West Local Government Area, *Nigeria. African Educational Research Journal*, 1(3), 2-9.
- Maher, D. (2014). on-line learning in primary schools. Retrieved from <https://www.researchgate.net/publication/296342009>
- Mayer, D.P., Mullens, J. E., Moore, M. T. (2001). Monitoring school quality: an indicators report. *Education Statistics Quarterly*, 3(1) 38-44. Retrieved from <https://nces.ed.gov>.
- Moll, L. C., Amanti, C., Neff, D. & Gonzalez, N. (1992). Funds of knowledge for teaching: using a qualitative approach to connect homes and classrooms. *Theory into practice*, 31(2), 132-141
- Pansiri, N. O. & Bulawa, P. (2013). Parents' participation in public primary schools in Botswana: Perceptions and experiences of head teachers. *International Education Studies*, 6(5), 68-77.
- Smith, S. J. (n.d). *Different types of on-line classrooms*. Retrieved from <https://www.understood.org>
- Themes, A. (2018). *The best teaching methods for primary teaching*. Asian College of Teachers, Teachers training Mumbai.
- UNESCO-USI. (2019). *SDG 4 data digest: how to produce and use the global and thematic education indicators*. Retrieved from [uis.unesco.org/sites/sdg4-data-digest](https://uis.unesco.org/sites/sdg4-data-digest).
- Williams, D. B. (1998). *Parent involvement gender effects on preadolescent student performance*. Conference proceedings of the American Educational Research Association. Retrieved from <https://eric.ed.gov>

