Promoting Sustainable Development of Primary Education Sector in Delta State through Teachers' Participation in Continuous Professional Development (CPD)

Programmes in Delta State

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Abstract

This study investigated the importance of promoting sustainable development in primary education sector in Delta State through teachers' participation in continuous professional development (CPD) programmes. Three research questions guided the study. A descriptive survey research design was adopted in the study. Population for the study consisted of fifteen thousand, three hundred and sixteen (15,316) teachers from 1,079 public primary schools in Delta State. The sample size for this study comprised 766 teachers from 108 primary schools selected using the proportionate stratified random sampling technique. Instrument for data collection was a 26-item researchers' self-developed questionnaire titled "Promoting Sustainable Development in Primary Education Sector through Teachers' Participation in Continuous Professional Development Programmes Questionnaire (PSDPESTPCPDPQ)". The instrument was validated by three experts. Reliability of the research instrument was established by sampling 30 teachers from 5 public primary schools and data generated were analyzed using Cronbach Alpha method, to give an overall internal consistency coefficient 'r' value of 0.84. Data collected were analyzed using mean statistics rated at 2.50 and standard deviation statistics. Findings of the study indicated among others that the extent of teachers' participation in on-the-job, off-the-job and computer-based continuous professional development programmes for promoting sustainable development in primary education sector were all to a low extent. The study recommended among others that; the Delta State Government including government agency such as TETFUND should promote sustainable development of the primary education sector through adequate financial support and scholarships for primary school teachers' continuous participation in on-the-job, off-the-job and computer-based professional development programmes.

Keywords: Development, participation, primary, sustainable, teachers

Introduction

Education is an indispensable and inevitable tool for sustainable development. It is a veritable instrument for human empowerment, likewise, socio-economic, cultural and political development in the society. The relevance and benefits of education towards sustainable development of the society which are enormous has made it very crucial that children are exposed to schooling at early ages of their lifetime through such educational programme as

primary education. Primary education is therefore, seen as the foundation of children learning. According to Anero (2014), primary education sector is education given in an institution for children aged 6 to 11 plus and it is equally, a basic tool for effective children upbringing and overall societal development. Primary education provides learning and educational activities typically designed to provide students with fundamental skills in reading, writing and mathematics (i.e. literacy and numeracy). It establishes a solid foundation for learning and understanding core areas of knowledge and personal development, likewise, prepares children for further education in the secondary school. Primary education is however, designed to give pupils a sound basic education in reading, writing and mathematics, and an elementary understanding of subjects such as history, geography, natural sciences, social sciences, and arts (IGI Global Partnerships, 2021). The goals of primary education as indicated by the Federal Republic of Nigeria (FRN, 2014) under section 2, pg. 9 of the National Policy on Education (NPE) are as follows:

- a. to inculcate permanent literacy and numeracy, and ability to communicate effectively;
- b. to lay a sound basis for scientific, critical and reflective thinking;
- c. to promote patriotism, fairness, understanding and national unity;
- d. to instill social, moral norms and values in the child;
- e. to develop in the child the ability to adapt to the child's changing environment;
- f. to provide opportunities for the child to develop manipulative skills that will enable the child function effectively in the society within the limits of the child's capacity;
- g. to give citizenship education as a basis for effective participation in and contribution to the life of the society;
- h. to mold the character and develop sound attitude and morals in the child; and
- i. to provide the child with basic tools for further educational advancement, including preparation for trades and crafts of the locality.

All the above enlisted goals showcase that the primary education sector is not only important programmes for every child's development but including, for socio-economic development of the society. All children, hence, no matter where they live or come from, whatever their circumstances may be, have the right to a functional and quality primary education which must be sustainable to recipients (Abel & Amenger, 2014). Thus, it is the responsibility of teachers in the primary school to ensure that they provide effective teaching and learning for children development. At the primary schools, teachers are very important human resources who trains and prepares children for active learning. While children are at the center of learning, teachers stand at the forefront of every child's learning. The primary school teachers thus, must be professional skilled, well-talented and highly competent to promote quality instructions for attainment of the goals and objectives of the primary education sector. This makes teachers very important human resources for sustainable development of the primary education sector.

Sustainable development of the primary education sector besides, means that the system should be organized and managed in a way that not only serves the present generation but likewise, the future generation. According to Rabie (2016), sustainable development entails development that meets the needs of the present generations without compromising

the ability of future generations to meet their own needs. Needham cited in Rabie (2016) goes beyond this definition to say, sustainable development is the ability to meet the needs of the present while contributing to [meeting] the future generations' needs. Therefore, sustainable development could be defined as a pattern of economic growth in which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come. Being that the quality, effectiveness and sustainable development of the primary education sector also lies in the hands of teachers; it is however, important that teachers consistently and continually participate in their professional development (PPD) programmes, be it on-the-job, off-the-job and computer professional development programmes. Teachers continuous professional development (CPD) programmes as observed by Amadi (2013) is a holistic approach towards the enhancement of teachers' personal skills and proficiency throughout their professional's career. These programmes, are equally referred to as in-service training and capacity building programmes whereby the skills and knowledge attained are necessary for both personal development and career advancement (Amadi, 2013). Amadi further asserted that CPD encompasses all types of facilitated learning opportunities ranging from college or university degrees' formal coursework, conferences, seminars, workshops and informal learning opportunities situated in practice, offered for primary school teachers capacity building and productivity. CPD means further everything from taking a training course or attending an educational event, to studying for new qualifications or learning new aspects of a job. Continuous professional development programmes enable learning to become conscious and proactive, rather than passive and reactive. It involves an individual documenting and keeping a record of the increasing skills, knowledge and experience they gain throughout their career. CPD in education essentially is concerned with three major issues namely; assessing the need for teachers, satisfying the need for teachers, and maintaining and improving the teachers' services (Omebe, 2014). The goals and relevance of CPD in sustainable development of the primary education sector which are equally enormous as further indicated by Omebe (2014) are specifically, to develop the primary school teachers to become able to contribute to educational goals achievement. The United Nation's Educational Scientific and Cultural Organization (UNESCO, 2020) maintained that the ultimate goal of any CPD is to upgrade teachers' knowledge, skills and competences. CPD programme is a commitment to ongoing lifelong learning which encourages looking forward and identifying opportunities to learn something new, refresh existing knowledge, improve skills, or simply keep up-to-date with the latest developments within a particular profession or industry.

The Organization for Economic Cooperation and Development (OECD, 2009) observed that CPD have a lot of relevance and benefits to the primary education sector teachers, which includes: updating their knowledge of a subject in the light of recent advances in the area; updating individual skills, attitudes and approaches in light of the development of new teaching techniques and objectives, new circumstances and new educational research; enabling teachers to apply changes made to curricula or other aspects of teaching practice; enabling teacher education programmes to develop and apply new strategies concerning the curriculum and other aspects of teaching practice; assisting to exchange information and expertise among teachers and others, e.g. academics, industrialists;

and helping weaker teachers become more effective, competent and skillful. Thus, absence of continuous professional development programmes for the primary education sector teachers will retard their professional growth and development, as well as, filing in the "missing gaps" between demands and actual achievement levels in primary education (Osamwonyi, 2016). Continuous professional development programmes combine different methodologies to learning, which includes long and short-term training courses, seminars, workshops, conferences and events, symposiums, small group discussions, public lectures, webinars, vestibule training, mentorship, coaching, correspondence courses, computer education programmes and online eLearning programmes, among others. CPD programmes can also include sharing best practice techniques, thoughts and ideas, all focused towards an individual improving within the work environment (Amadi, 2013; Organization for Economic Cooperation and Development - OCED, 2009). In the works of Ezugoh (2017) and Kampen (2019), CPD programmes has been broadly grouped into three which includes: onthe-job training, off-the-job training and computer professional development training programmes. On-the-job professional development programmes are training provided during the regular performance of duties. This can take a variety of forms including: guidance, job shadowing and rotation, coaching, mentoring, team teaching, staff meetings, among others. Off-the-job professional development training programmes are usually provided away from the employee's usual work environment. They may be in the same building or off site. This training may be provided by trainers working for the same employer as the employees being trained or an outside company hired by the employer. Off-the-job training is often used to support the employees studying for a formal qualification or exam. In contrast to coaching this type of training usually focuses on knowledge and not skills. Teachers off-the-job development programmes can take different forms of seminars, workshops, conferences, university post graduate education, vestibule training, public lectures, short and long term training courses, international training courses, internship, apprenticeship, among others (Ezugoh, 2017; Kampen, 2019). The benefits of this development and training programme to teachers include the following: to uncover teachers' potential; enable teachers to understand the latest developments and trends within the school organization; less confrontations; leads to increased teachers productivity; provide teachers, the owner or manager of the school, with some insight into the expectations that teachers might have; and remind teachers work force what the goals are and how they can drive the desired results (Simmons, 2012). Computer based training usually provides and equips the teachers with relevant information using a computer based (digital app) or approach to provide training. Example of such training will include webinars, online eLearning programmes, computer application training programmes in different software applications, among others (Ezugoh, 2017; Kampen, 2019).

Kumar (2021) pointed out different computer training programmes that could be offered to primary school teachers for sustainable development of the primary education sector and they include the following training programmes such as the: web designing, certification course in computer technology, computer amination, tally, Microsoft office, cyber security, software and programming, hardware maintenance and digital marketing training courses. Given the importance of these CPD training programmes, yet many primary school teachers do not avail themselves the opportunity to consistently and continuously

participate in many of the programmes. Most of primary education sector teachers lack or inadequate participation in CPD programmes can be observed through their poor performances on the job, low productivity, poor commitment to duty, ineffectiveness in using different teaching methodologies, poor classroom management, poor instructional delivery, poor use of technological resources for promoting effective learning, learners' poor academic performances and low achievements. All these shortcomings, have great consequences on sustainable development of the primary education sector. Several empirical researches such as those of Abdullah, Shamsuddin, Wahab and Muazu (2018), Asita and Austin (2021), Ezugoh (2017), Nnadi, Uzokwe and Oguzie (2020), Onajite (2018), Usman and Madudili (2020), among others, have conducted studies indicating the importance, relevance, benefits, challenges and problems associated with teachers' involvement and engagement in CPD training programmes. All these empirical studies have their own mix and shortcomings; likewise, have seriously not delved into the aspect of teachers' participation in CPD programmes for sustainability of the primary education sector in Delta State. It is based on this premise that the present study sought to determine the extent of promoting sustainable development in primary education sector through teachers' participation in on-the-job, offthe-job and computer continuous professional development (CPD) programmes. In a bid to promote quality education for sustainability of the primary education sector through teachers' participation in continuous professional development (CPD) programmes, especially in Delta State, this has warranted the present study.

Statement of the Problem

Teachers are one of the important human resources especially for sustainable development of the primary education sector in the country. The efficiency, effectiveness and high quality of instructional delivery in the primary schools for goals achievement, largely depends on the teachers. In reality, many primary school teachers including those in Delta State lack the proficiency and competence to provide or render quality services and instructions for learners' high academic achievements; which is usually caused by their inadequate and lack of participation in various continuous on-the-job, off-the-job and computer professional development (CPD) programmes to persistently update and upgrade their knowledge. Besides, teachers' inadequate participation in continuous on-the-job, off-the-job and computer CPD training programmes is observable from their job performances, low productivity and students' academic performances in both internal and external examinations. Poor teachers' participation in CPD programmes have great consequences on sustainable development of the primary education sector for both the present and future generations. However, the problems of the primary school teachers' inefficiency and ineffectiveness in promoting sustainable development in primary education sector has created a gap which needs to the filled in this present study. This is equally the problem of this present study.

Purpose of the Study

The purpose of this study was to determine the importance of promoting sustainable development in primary education sector in Delta State through teachers' participation in

continuous professional development (CPD) programmes. Specifically, the study aimed at ascertaining the following:

- 1. The extent of teachers' continuous participation in on-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State.
- The extent of teachers' continuous participation in off-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State.
- 3. The extent of teachers' continuous participation in computer professional development programmes for promoting sustainable development in primary education sector in Delta State.

Research Questions

The following research questions guided the study;

- 1. What is the extent of teachers' continuous participation in on-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State?
- 2. What is the extent of teachers' continuous participation in off-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State?
- 4. What is the extent of teachers' continuous participation in computer professional development programmes for promoting sustainable development in primary education sector in Delta State?

Methods

A descriptive survey research design was adopted in the study. This design, enabled the researchers to carry out a field investigation by getting the opinions from a sample of teachers from their existing large population using a questionnaire and information gathered were thereafter analyzed using a statistical tool to draw generalization and conclusion based on the findings of the study. Population for the study consisted of fifteen thousand, three hundred and sixteen (15,316) teachers from 1,079 public primary schools in Delta State. Justification for choosing only teachers as the population of the study was because they were in better position to reveal the true position of things concerning their participation in continuous professional development (CPD) programmes in the primary education sector in Delta State. The sample size for this study comprised 766 teachers from 108 primary schools selected at 5% respectively using the proportionate stratified random sampling technique. The essence of selecting a sample of teachers was to enable the researchers to have a controllable size and number of teachers who were having a large population and geographically spread at strategic and different locations, in the LGAs in Delta State. In view of the difficulty in gathering information from all the teachers in the primary education sector, it then, became necessary to draw sample for the study. Instrument for data collection was a 26-item researchers' self-developed questionnaire organized on a 4-point rating scale and titled "Promoting Sustainable Development in Primary Education Sector through Teachers'

Participation in Continuous Professional Development Programmes Questionnaire (PSDPESTPCPDPQ)". The design and construction of the instrument was based on the numerous literatures reviewed, purpose of the study and research questions. The questionnaire was organized into 4 clusters and structured on a 4-point scale of Very High Extent (VHE) -4 points, High Extent (HE) -3 points, Low Extent (LE) -2 points and Very Low Extent (VLE) -1 point.

The instrument was validated by three experts from the Faculty of Education, Delta State University, Abraka. These experts determined the face and content validity of the questionnaire in terms of the sentence construction and language clarity, in which corrections were made on some of the items on the questionnaire and was effected before the final print out. Reliability of the research instrument was established through a pilot-test sampling 30 teachers from 5 public primary schools in Delta State which were not part of the study. Data generated from the pilot-test conducted were analyzed using the Cronbach Alpha method. This yielded coefficient reliability values of 0.83, 0.89 and 0.81, for each of the three sections respectively, giving an overall internal consistency coefficient of 0.84, showcasing that the questionnaire was reliable. Distribution of all the copies of the questionnaire was done through a personal, hand delivery and direct contact with the respondents employing the services of 5 research assistants, who were instructed on how to communicate with the teachers in order to retrieve the necessary information from them. An on-the-spot method was also used to collect data as a way of retrieving all the 766 copies of the questionnaire at a 100% rate of return from the respondents. However, it took the researchers and the research assistants a period of two weeks to gather the information from the respondents. Data collected were analyzed using only mean statistics rated at 2.50 and the standard deviation statistics. The decision rule was that any mean score which rated 2.50 and above was considered as high extent (HE), meanwhile, mean score of 2.49 and below was termed low extent (LE).

Results

Research Question 1. What is the extent of teachers' continuous participation in on-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State?

Table 1: Mean Scores and SD Ratings of Teachers on Extent of their Continuous Participation in On-The-Job Professional Development Programmes for Promoting Sustainable Development in Primary Education Sector in Delta State.

n = 766 teachers								
S/N	Please show your agreement on extent of your participation in the under listed on-the-job professional development training programmes:	VHE	HE	LE	VLE	X	SD	Decision
1.	Job rotation scheduled in the school	92	148	214	312	2.03	1.04	Low Extent
2.	Coaching by an expert in the school	34	100	278	354	1.76	0.84	Low Extent
3.	Mentorship provided by an older staff	37	172	266	291	1.94	0.89	Low Extent
4.	Use of team teaching	73	181	212	300	2.04	1.00	Low Extent
5.	Training acquired through staff meetings	88	140	303	235	2.11	0.97	Low Extent
6.	Guided practice in the school for guidance	91	210	266	199	2.25	0.97	Low Extent
7.	Job shadowing	48	199	231	288	2.01	0.94	Low Extent
8.	Indoor workplace training organized through seminars, conferences and workshops Overall Mean X =	70	195	218	283	2.07	0.99	Low Extent Low
						2.02	0.97	Extent

Table 1 shows that the respondents (that is, teachers sampled) rated all the items to low extent as the mean scores for all the items range between 1.76 to 2.25 and were all below 2.50, the mean score for accepting a mean value as high extent. The grand mean and standard deviation (SD) is 2.02 and 0.97 respectively, showing that there was no deviation in the respondents' responses. By this analysis, the respondents reacted negatively to all the statements. The result reveals the extent of teachers' continuous participation in on-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State was to a low extent.

Research Question 2. What is the extent of teachers' continuous participation in off-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State?

Table 2: Mean Scores and SD Ratings of Teachers on Extent of their Continuous Participation in Off-The-Job Professional Development Programmes for Promoting Sustainable Development in Primary Education Sector in Delta State.

n = 766 teachers								
S/N	Please show your agreement on extent of your participation in the under listed off-the-job professional development training programmes:	VHE	HE	LE	VLE	x	SD	Decision
9.	Professional including Association conferences organized in other institutions	57	156	277	276	1.99	0.93	Low Extent
10.	Short term courses outside the school	49	133	366	218	2.02	0.84	Low Extent
11.	Long term training conducted outside the school premises within or outside the country	61	171	233	301	1.99	0.97	Low Extent
12.	Seminars conducted by other organizations	89	167	263	247	2.13	0.99	Low Extent
13.	Vestibule training organized by international organizations	66	155	278	267	2.03	0.95	Low Extent
14.	University Post graduate degree training programmes	101	149	310	206	2.19	0.98	Low Extent
15.	Public lecture schedule in other institutions	60	150	301	255	2.02	0.92	Low Extent
16. 17.	School vacation internship programmes Apprenticeship programmes offered	84	176	234	272	2.09	1.01	Low Extent Low
18.	Apprenticeship programmes offered outside the school Workshops scheduled outside the school	83	138	276	269	2.05	0.98	Extent
10.	by professional bodies/agencies	91	119	259	297	2.01	1.01	Low Extent
	Overall Mean X =					2.05	0.96	Low Extent

Table 2 shows that the respondents (that is, teachers sampled) rated all the items to low extent as the mean scores for all the items range between 1.99 to 2.19 and were all below 2.50, the mean score for accepting a mean value as high extent. The grand mean and standard deviation (SD) is 2.05 and 0.96 respectively, showing that there was no deviation in the respondents' responses. By this analysis, the respondents reacted negatively to all the statements. The result reveals the extent of teachers' continuous participation in off-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State was to a low extent.

Research Question 3. What is the extent of teachers' continuous participation in computer professional development programmes for promoting sustainable development in primary education sector in Delta State?

Table 3: Mean Scores and SD Ratings of Teachers on Extent of their Continuous Participation in Computer Professional Development Programmes for Promoting Sustainable Development in Primary Education Sector in Delta State

n = 766 teachers								
S/N	Please show your agreement on extent	VHE	HE	LE	VLE	X	SD	Decision
	of your participation in the under listed							
	computer professional development							
	training programmes:							
19.	Computer training programmes on the use							Low
	of Microsoft office	56	168	312	230	2.07	0.90	Extent
20.	Training in computer software and	42	120	220	275			Low
	programming	42	129	320	275	1.92	0.86	Extent
21.	Training in hardware maintenance	55	134	323	254			Low
						1.99	0.89	Extent
22.	Digital marketing training courses	60	112	263	331			Low
		00	112	203	331	1.87	0.94	Extent
23.	Training in use of computer animation	48	135	266	317			Low
2.4						1.89	0.91	Extent
24.	Computer training in graphic designing	54	112	330	270	1.02	0.00	Low
25	The initial control of the second of the sec					1.93	0.88	Extent
25.	Training in use of computer assisted instructions	67	128	323	248	2.02	0.92	Low Extent
26						2.02	0.92	
26.	Computer training in use of Internet for online applications	55	114	330	267	1.94	0.88	Low Extent
	Overall Mean X =					1.74	0.00	Low
	Overan Mean A =					1.95	0.90	Extent

Table 3 shows that the respondents (that is, teachers sampled) rated all the items to low extent as the mean scores for all the items range between 1.87 to 2.07 and were all below 2.50, the mean score for accepting a mean value as high extent. The grand mean and standard deviation (SD) is 1.95 and 0.90 respectively, showing that there was no deviation in the respondents' responses. By this analysis, the respondents reacted negatively to all the statements. The result reveals the extent of teachers' continuous participation in computer professional development programmes for promoting sustainable development in primary education sector in Delta State was to a low extent.

Discussion of Findings

The findings of this study generally revealed that the extent of teachers' participation in onthe-job, off-the-job and computer-based continuous professional development programmes for promoting sustainable development in primary education sector in Delta State were all to a low extent. These findings agree and corresponds with Asita and Austin (2021) study on staff development and teachers' performance in public secondary schools in Rivers State which found out that teachers in public secondary schools in Rivers State were hardly trained or developed in the job. Ezugoh (2017) study found out that induction training and orientation were not provided for newly employed educators, opportunities of off-the-job training through tertiary education were not offered to educators to enable them improve their competence in their teaching area; mentoring through observation of experts was not used as means of motivating educators for high performance; free educational scholarships were not provided as means of improving their level of competences and skill upgrading; educators were not sent to long and short courses abroad; educators did not attend long and short courses within Nigeria in order to improve their work efficiency; and professionals of adult education were not regularly offered offer on-the-job training improved productivity. More so, it was found out through the finding of this study that the extent of teachers' continuous participation in on-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State was to a low extent. It was further confirmed through this finding that the extent of teachers' continuous participation in on-thejob professional development programmes such as job rotation, coaching by an expert, mentorship provided by an older and experienced staff, team teaching, training acquired through staff meetings, guided practice in the school for guidance, job shadowing, and indoor workplace training organized through seminars, conferences and workshops; for promoting sustainable development in primary education sector, were all to a low extent. This finding corroborates with Onajite (2018) study on in-service training opportunities provided for business educators for improving their job performance in secondary schools in Delta State, which found out that induction training coupled with on-the-job in-service training opportunities were not appropriately provided for business educators in the secondary schools in Delta State in order to guarantee or ensure their job performances.

It was further indicated through the finding that the extent of teachers' continuous participation in off-the-job professional development programmes for promoting sustainable development in primary education sector in Delta State was to a low extent. This finding further confirmed that the extent of teachers' continuous participation in on-the-job professional development programmes such as professional including association conferences organized in other institutions, short term courses outside the school, long term training conducted outside the school premises within or outside the country, seminars conducted by other organizations, vestibule training organized by international organizations in order to train teachers, university post graduate degree training programmes, public lecture schedule in other institutions, school vacation internship programmes, apprenticeship programmes offered outside the school, and workshops scheduled outside the school by professional bodies/agencies; for promoting sustainable development in primary education sector, were all to a low extent. This finding concurs with Nnadi, Uzokwe and Oguzie (2020) study which found out that the percentage of counsellors' that participated in in-service training programmes for quality assurance in counselling services in secondary schools in Anambra State was minimal and low. The present study finding also corroborates with Onajite (2018) study which found out that off-the-job in-services training opportunities were not appropriately provided for business educators in the secondary schools in Delta State in order to guarantee or ensure their job performances. Their participation in on-the-job and off-the-job in-service training programmes was low as well indicating that the counsellors did not show much participation in these training programmes investigated.

The finding of this study further revealed that the extent of teachers' continuous participation in computer professional development programmes for promoting sustainable development in primary education sector in Delta State was to a low extent. The finding also confirmed that computer training programmes on the use of Microsoft office, training in computer software and programming, training in hardware maintenance, digital marketing training courses, training in use of computer animation, computer training in graphic designing, training in use of computer assisted instructions (CAIs), and computer training in use of the Internet for various online applications and teaching of primary school pupils; for promoting sustainable development in primary education sector, were all to a low extent. This finding of Usman and Madudili (2020) study on assessment of the impact of computer assisted instruction on teaching and learning in Nigeria, a theoretical viewpoint found out some factors which militating against the adoption and efficient use of Computer Assisted Instruction in the Nigerian schools. Abdullah, Shamsuddin, Wahab and Muazu (2018) study on the participation in continuous professional development (CPD) training and perceived teaching assessment: A case study at the Malaysian Technical University confirmed that 52.5% of academicians did not participate in any CPD training programmes in the last three years (2015-2017). Ezugoh (2017) study equally confirmed that computer-based trainings were not available for educators in order to provide them the necessary information to function actively in teaching and learning. The educators rarely participated actively in the computer-based CPD training programmes. All the findings of this present study has shown that there is need to show priority interest on teachers' professional development at the primary education sector which is the foundation of all human learning and very crucial for sustainable development of the sector.

Conclusion

The primary school teachers are very important human resources in the development of children in the primary education sector. Teachers play important roles in the teaching-learning experiences which make it possible for the attainment of educational goals and objectives. Given the important roles of the primary school teachers in the education sector coupled with the need for attainment of sustainable development in this sector, teachers continuous and active participation in professional development training programmes are of utmost importance. However, the present study concludes and submits that the extent of teachers' participation in on-the-job, off-the-job and computer-based continuous professional development programmes for promoting sustainable development in primary education sector in Delta State were all to a low extent. This poor situation needs to be properly and absolutely readdressed for sustainable development of the primary education in Delta State and beyond. Thus, the recommendations made below.

Recommendations

Based on the findings of this study, the following recommendation were proffered:

- 1. Delta State Government including government agency such as TETFUND should promote sustainable development of the primary education sector through adequate financial support and scholarships for primary school teachers' continuous participation in on-the-job, off-the-job and computer-based professional development programmes. However, head teachers should ensure that they regularly organize on-the-job professional development programmes for teachers which will positively impact on sustainable development of the sector.
- 2. Head teachers should equally solicit support from external agencies and organizations in order to consistently provide off-the-job professional development programmes for teachers for sustainable development of the primary education sector.
- 3. Teachers should be highly encouraged by relevant authorities such as SUBEB, that is, the State Universal Basic Education Board to constantly participate in computer CPD programmes for sustainable development of the primary education sector in Delta State.

References

- Abdullah, N.H., Shamsuddin, A., Wahab, E. & Muazu, M.H. (2018). Participation in continuous professional development training and perceived teaching assessment: A case study at the Malaysian Technical University. *Business and Economic Horizons*, 14 (3), 530-541. http://dx.doi.org/10.15208/beh.2018.38
- Abel, O.S. & Amenger, H.S. (2014). Primary education in Nigeria: Problems and prospects. *Journal of Teacher Perspective*, 8 (4), 1-7. https://www.globalacademicgroup.com/journals/teacher%.pdf.
- Amadi, M.N. (2013). *In-service training and professional development of teachers in Nigeria: Through open and distance education*. https://files.eric.ed.gov/fulltext/ED567172.pdf.
- Anero, N. (2014). Relevance and challenges of primary education to the overall development of the child and the Nigerian society. *Global Journal of Educational Research*, 13, 55-62. http://www.globaljournalseries.com/.
- Asita, M.P. & Austin, I.S. (2021). Staff development and teachers' performance in public secondary schools in Rivers State. https://www.researchgate.net/publication/350517258
- Ezugoh, T.C. (2017). Motivational strategies provided for educators for facilitating learning in adult literacy centres in Delta State. *Unpublished masters' degree thesis*. Submitted to the Department of Adult Education, Faculty of Education, Nnamdi Azikiwe University, Awka.
- Federal Republic of Nigeria (2014). National policy on education, 6th edition. NERDC.
- IGI Global Partnerships (2021). What is primary education. https://www.igi-global.com/dictionary/a-review-of-educational-games-for-teaching-programming-to-primary-school-.

- Kampen, M. (2019). 5 ways to make teacher professional development effective (with examples). https://www.prodigygame.com/main-en/blog/teacher-professional-development.
- Kumar, R. (2021). *Basic computer courses list for beginners*. https://www.coursesxpert.com/.
- Nnadi, G.C., Uzokwe, H.E. & Oguzie, A.E. (2020). Counsellors' participation in in-service training programmes for quality assurance in counselling services in secondary schools in Anambra State, Nigeria. *Journal of Guidance and Counselling Studies*, 4 (1), 133-146. https://www.jgcsunizik.org/.
- Omebe, C.A. (2014). Human resource management in education: Issues and challenges. *British Journal of Education*, 2 (7), 26-31. Published by European Centre for Research Training and Development UK. www.eajournals.org.
- Onajite, G.O. (2018). In-service training programme opportunities provided for business educators for improving their job performance in secondary schools in Delta State. *Journal of Education & Social Policy*, *5* (4), 20-29. http://jespnet.com/journals/Vol_5 No_4 December 2018/3.pdf.
- Organization for Economic Cooperation and Development (OECD, 2009). *The professional development of teachers*. https://www.oecd.org/berlin/43541636.pdf.
- Osamwonyi, E.F. (2016). In-service education of teachers: Overview, problems and the way forward. *Journal of Education and Practice*, 7 (26), 83-87. https://files.eric.ed.gov/EJ1115837.pdf.
- Rabie, M. (2016). *Meaning of sustainable development*. https://www.researchgate.net/publicati.
- UNESCO (2020). In-service training. http://uis.unesco.org/en/glossary-term/service-training.
- Usman, Y.D. & Madudili, G.C. (2020). Assessment of the impact of computer assisted instruction on teaching and learning in Nigeria: A theoretical viewpoint. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 16 (12), 259-271.