IMPACT OF TEACHER PROFESIONAL DEVELOPMENT ON TEACHING AND LEARNING IN JUNIOR SECONDARY SCHOOLS IN ANAMBRA STATE

Obineme, P. O.
Department of Educational Management and Policy, Faculty of Education, Nnamdi Azikiwe University, Awka

Abstract
This study examined impact of teacher professional development on teaching and learning in junior secondary schools in Anambra state. It was guided by four research questions and one hypothesis was tested. The study adopted the descriptive survey design. The population of the study comprised of 4,095 junior secondary school teachers in the school. Multi stage procedure involving proportionate sampling and simple random sampling (balloting without replacement) were used to draw the sample. This amounted to 180 teachers as sample for the study. Instrument used for data collection was a 20 item questionnaire distributed to 180 junior secondary school teachers. Out of this number, 158 were duly completed, returned and used for the study. The instrument for the study was tagged Impact of Teacher Professional Development on Teaching and Learning (ITPDTL) with reliability coefficients of 0.76, 0.74, 0.68 and 0.73 for the four clusters and an overall coefficient of 0.72. The reliability was determined using Cronbach Alpha technique. Analysis of data collected was done g arithmetic mean scores to answer the four research questions while t-test was used in testing the hypothesis at 0.05 alpha level. Findings revealed among other things that to a high extent, teachers are aware of terms like instructional material, teaching methodology, evaluation and classroom management. Findings also revealed that most teachers, to a high extent lacked the professional development in these areas due to lack of consistent re-training exercise. It also revealed that year of experience has been helpful in teaching profession. Based on these findings, it was recommended among others that teachers need retraining workshops on uses of instructional materials, sensitization on methods of teaching, use of different evaluation strategies and exposed to classroom management practices to effectively manage students in their classes.
Keywords: Teacher, professional development, instruction, Anambra State.

Introduction
Education has been the mechanism through which societies generate the knowledge and skills required for its survival and sustenance. Education also

improves the quality of lives and leads to a broad social benefits to individuals and society. Little wonder nations have thrown their weight behind education which has been the pillar of success among economies of the world. Okezie, Okpe and Ngwakwe (2018) posit that Education all over the world is seen as the corner stone of development and the major social services which the government of any nation, communities, parents and philanthropic organizations give to their children. Education authorities have seemed to agree that increasing standards for pre-service education of teachers will not necessarily lessen the need for continued in-service preparation and professional growth.

No amount of time spent in college or university will complete the preparation of the teacher for classroom tasks. Teachers, like doctors, priests, and lawyers, must continue with their education after graduation. Constantly applying new techniques and materials make education in service absolutely necessary. If teachers are to become real leaders in their respective schools, teachers must be provided with a programme of in-service training which is concerned with doing and not merely with listening. Orji (2010) asserts that education unlocks the door to modernization, but the teacher holds the key. A teacher here is one who teaches in a school or college. In the view of Obidike (2016), a teacher is a person whose occupation is teaching others especially children. He is also someone who instructs others or provides activities, materials and guidance that facilitate learning in either formal or informal situation. The teacher is the initiator of teaching and learning in any school. Without teaching, learning may not take place. Teaching as perceived by Kalule and Bauchamina (2013), is an interaction involving the learner, the subject matter, and the teacher. Teaching is to a teacher what learning is to a learner. According to Onwuka (2010), teaching goes along with learning.

Learning is an activity which involves the teacher and learner and at the end, the learner acquires certain skills, knowledge and experiences which help to shape his behavior. Zailani (2015) defines learning as a relatively permanent change in behavior due to practice and experience. This definition is a confirmation of Ojo (2012), who views learning as a relatively permanent change in behavior as a result of insight, practice, experience or stimuli in the behavior. Teaching and learning cannot be effective when teachers lack appropriate professional development and skills to do their job better.

Professional development refers to skills and knowledge attained for both personal development and career advancement. Professional development encompasses all types of facilitated learning opportunities, ranging from college degrees to formal coursework, conferences and informal learning opportunities situated in practice. Alabi (2011) asserts that teacher development significantly related to teacher productivity. Thus, Afe in Iyunade (2017) defined Teachers' professional development as that component of any educational system concerned with the education and training of teachers to acquire the necessary competencies and skills in teaching for improvement in the quality of teachers in the school

system. It is often planned and systemically tailored and applied for the cultivation of those who teach or will teach, particularly but not exclusively in primary and post primary schools. It has been described as intensive and collaborative, ideally incorporating an evaluative stage. If school teachers do not have the tools they need to teach students effectively, their students will suffer. To teach effectively, teachers need access to ongoing teacher professional development. This professional development enables teachers to improve their own education through seminars, workshops, and classes.

Through teacher professional development, teachers learn new teaching strategies to improve the quality of instruction. However, Darling-Hammond, Hyler, Gardner (2017) posit that effective professional development is structured on professional learning which results in changes to teacher knowledge and practices, and improvements in student learning outcomes. This allows them make changes in the way they teach their students and incorporating innovative teaching methods in the classroom. It teaches them how to work with a variety of learning styles, since not all students learn the same way. It also helps teachers change their day-to-day teaching methods, encouraging them to accept new methods based on accurate education research. The researcher is aware that for a teacher to do his job diligently, he must be conversant with methodology, use of instructional materials, classroom management, evaluation techniques and record keeping; these are observed impacts derived from professional teacher development. These were partly recognized by Enemuo and Obidike (2012) who identified academic qualification, personal attributes, motivation, learning theories, behavioural management, knowledge of ICT and other instructional aids.

Teachers are crucial inputs of any educational system because they have the command of the knowledge and skills to be imparted to the learners. Hence, the quality of teachers determines to a great extent the quality of teaching and learning outcomes. Since the inception of the present government of Anambra state, there has been various developmental programmes put in place for teachers in order to enhance especially, quality basic education. Such programmes include among others, in-service training, ICT training, seminars, workshops and induction programmes for teachers. These programmes concentrate on updating teachers knowledge on learners evaluation, methods of teaching and learning, students discipline, classroom management, and use of instructional materials.

Despite government effort and investment in teacher development programmes, the quality of teaching among teachers seems not to have improved to any appreciable level. Some educators blame this on ineffective management of the programme by those concern, while others attribute it to the poor attitude of some teachers toward the teaching profession. Therefore, it becomes pertinent to pose the question "To what extent does teacher professional development relate to quality teaching and learning in junior secondary school?

Purpose of the Study

The main purpose of this study is to examine the impact of teacher professional development on teaching and learning at junior secondary schools in Anambra state. Specifically, this study sought to examine the:

1. Extent professional development of teachers on instructional materials impacts teaching and learning at junior secondary schools in Anambra state.
2. Extent professional development of teachers on methodology impacts teaching and learning at junior secondary schools in Anambra state.
3. Extent professional development of teachers on evaluation impacts teaching and learning at junior secondary schools in Anambra state.
4. Extent professional development of teachers on classroom management impacts teaching and learning at junior secondary schools in Anambra state?

Research Questions

The following research questions guided this study

1. To what extent does professional development of teachers on instructional materials impacts teaching and learning at junior secondary schools in Anambra state?
2. To what extent does professional development of teachers on methodology impacts teaching and learning at junior secondary schools in Anambra state?
3. To what extent does professional development of teachers on evaluation impacts teaching and learning at junior secondary schools in Anambra state?
4. To what extent does professional development of teachers on classroom management impacts teaching and learning at junior secondary schools in Anambra state?

Hypothesis

There is no significant mean difference between the opinions of urban and rural teachers on the impact of teacher professional development on teaching and learning.

Methods

This study examined impact of teacher professional development on teaching and learning at junior secondary schools in Anambra state. It was guided by four research questions and one hypothesis was tested. The study adopted the descriptive survey design. The population of the study comprised 4,095 junior

secondary school teachers. Multi stage sampling procedure involving proportionate sampling and simple random sampling (balloting without replacement) techniques were used to draw the sample. This resulted to 180 teachers as sample for the study. Instrument used for data collection was a 20 item questionnaire tagged Impact of Teacher Professional Development on Teaching and Learning (ITPDTL). It had reliability coefficients of 0.76, 0.74, 0.68 and 0.73 for the four clusters and an overall value of 0.72. The reliability coefficient were determined using Cronbach Alpha technique. Copies of the instrument were administered on 180 junior secondary school teachers sampled. Out of this number, 158 representing 87.9% were duly completed, returned and used for the study. Analysis was done using arithmetic mean scores to answer the four research questions while t-test was used in testing the hypothesis at 0.05 alpha level. Items with mean scores above 2.5 were taken as agreement while those with mean scores below 2.5 were taken as disagreement. For the hypothesis it was rejected if the t-cal is greater than t-crit, otherwise it was accepted.

Results

Table 1: Extent to which professional development of teachers on instructional materials impacts teaching and learning at junior secondary schools in Anambra State.

S/N	ITEMS	$\bar{X}$	Decision
1	Extent to which you were taught the significant of improvisation in teaching and learning in your training years	2.27	Disagree
2	Extent to which you have been involved re-training exercise on use of instructional material for teaching	2.14	Disagree
3	What extent are you aware of the use of instructional materials in teaching	3.21	Agree
4	What extent have your school principal organize workshop on instructional material in your school	2.08	Disagree

Data analysis in Table 1 show that the mean scores for items 1-4 were 2.27, 2.14, 3.21 and 2.08 respectively. Items1, 2 and 4 were disagreed to because they recorded mean scores below 2.50. The respondents however agreed to item 3 with a mean score of 3.21 which was above the cut off mean of 2.50.

Table 2: Extent to which professional development of teachers on methodology impacts teaching and learning at junior secondary schools in Anambra state?

S/N	ITEMS	$\bar{X}$	Decision
5.	Extent to which your years of experience in teaching help you select appropriate methods in teaching.	2.91	Agree
6	You read often to re-awake your knowledge on appropriate methods to teach	2.19	Disagree
7	Extent to which you use teacher centered methods	1.74	Disagree
8	To what extent do you apply learner centered methods	2.92	Agree
9	In your years of observation, what extent do students response to learner centered methods	3.14	Agree
10	Knowledge you acquired from a workshop on methods to an extent helps you in teaching	2.94	Agree

Analysis in Table 2 show that the mean scores for items 5-10 were 2.91, 2.19, 1.74, 2.92, 3.14 and 2.94 respectively. Items 6 and 7 were disagreed to because their mean scores were below 2.50. The other items namely 5,8,9, and 10 were agreed to because their mean scores were 2.50 and above.

Table 3: Extent to which professional development of teachers on evaluation impacts teaching and learning at junior secondary schools in Anambra state

S/N	ITEMS	$\bar{X}$	Decision
11	The extent to which you perform as a teacher on evaluation skills is low because you have not been exposed to re-training exercise	1.94	Disagree
12	Extent to which knowledge acquired during teacher training helps in doing your job as a teacher	3.23	Agree
13	Your professional training as a teacher made you conversant in the use of summative and formative evaluations in teaching	2.15	Disagree
14	Extent of evaluating students' cognitive, affective and motor learning experiences	2.17	Disagree
15	Extent to which you need continuous re-training to be more effective in use of evaluation in class	2.72	Agree

Data analysis in Table 3 show that the mean scores for items 11-15 were 1.94, 3.23, 2.15, 2.17 and 2.72 respectively. Items 11, 13 and 14 were therefore disagreed to because their mean scores were below 2.50. Items 12 and 15 were agreed to because their mean score were 2.50 and above.

Table 4: Extent to which professional development of teachers on classroom management impacts teaching and learning at junior secondary schools in Anambra state

S/N	ITEMS	$\bar{X}$	Decision
16	Extent to which you apply discipline in classroom	2.71	Agree
17	What extent does autocracy help you to discipline your student	2.05	Disagree
18	Extent to which you use verbal abuse in management of students behviour	2.01	Disagree
19	Extent to which your profession taught you the use of democratic virtues classroom management	3.20	Agree
20	Extent to which you need training or classroom management	2.90	Agree

Analysis of data in Table 4 show that the mean scores for items 16-20 were 2.71, 2.05, 2.01, 3.20 and 2.90 respectively. Items 17 and 18 were disagreed to because their mean score is below 2.50. They however agreed to items 16,19 and 20 with mean scores above the cut off mean score ofn 2.5.

Table 5: t-Test comparison of opinions of male and female teachers on impact of teacher professional development on teaching and learning

Respondents	N	SD	X	t-cal	df	α	t-crit	Decision
Urban Teachers	109	0.87	0.45					
				0.025	156	.05	1.972	Accept H0
Rural Teachers	49	0.52	0.36					

As shown on Table 5, t-cal (0.025) is less than t-crit (1.972). The null hypothesis is therefore accepted. There is no significance mean difference between opinions of urban and rural teachers on the impact of teacher professional development on teaching and learning.

Discussion

Analysis in table one sought extent to which professional development of teachers on instructional materials impacts teaching and learning. Findings show that to a high extent teachers are aware about the use of instructional materials in teaching but to a low extent were taught significant of improvisation. It was also indicated that teachers were involved in re-training exercise on use of instructional materials and workshop on a low extent. But Odeh, Oguche and Ivagher (2015) partially, differ in this findings. They argued that though Nigerian teachers pass through

training and re-training exercise in their professional development. Most teachers graduate or pass out in these workshops with little or no knowledge because most training centers are poorly equipped with needed infrastructures to make learning meaningful. Identifying the extent to which teachers improvise, Onyemerekeya (2010) held that not all teacher improvise. Most teachers were passive in this area and were only interested in their monthly payments. But Good (2009) asserts that teachers who provide instructional materials in schools are few and that they were diligent to duty.

The lack of re-training and non-organization of workshop as responded in this study was argued by Akinsolu (2010) who insists that teachers in Nigerian primary and secondary schools have faced period of little light because the government had not done justice in providing teachers workable platform to develop their potentials.

Analysis in table two sought extent to which professional development of teachers on methodology impacts teaching and learning. Findings reveal that to a high extent, years of experience was advantage to teachers in utilizing appropriate teaching methods and that to a high extent, teachers apply learner centered methods. These findings were in-line with Orji (2010) who noted that good experience makes a good teacher. This is connected to the fact that an experience teacher provides learning experiences that make learners active. Kanu (2010) on his findings maintained that with good methods, a teacher can drive home his instructions with less burden but warned that teachers should consider use of methods based on the age bracket of learners.

Analyses also show that to high extent, students' responds to learner centered methods and that little knowledge acquired by teachers on a workshop on methodology helps teacher do their job better. This finding did not differ with Anuna (2010) who confirmed that the best methods that may drive home learning in the most effective and practical manner is making learning child or learner centered. To Anuna (2010) and Onyemerekeya (2010), the child centered method include projects, group, individualized instructions, experiential learning among others. These methods are updated to teachers during workshops (Odeh et al, 2015).

It was also reveal that to a low extent, teachers do not often read to re-awaken their knowledge on methods. Darlin-Hammond et al (2017) defended teachers on this and argued that teachers were so much occupied with academic works involving students' records and organizing their notes, but requested that educational systems should provide means of relieving the overload works inherited by teachers as it would help them identify areas that improves their knowledge in education.

Analysis in table 3 sought extent to which professional development of teachers on evaluation impacts teaching and learning. Findings reveal that to a high extent, knowledge acquired during teacher training helps teachers do their job

better and that to a high extent, teachers' needs re-training to be more effective in use of evaluation.

On this note, Nkemakolam (2010) reported that most teachers who were ignorant of evaluation methods, concocted scores for students rather than follow due process of evaluation. He maintained that observed cases of teachers concocting scores was due to ignorance of evaluation methods and time to administer evaluation both in cognitive, affective and motor development. This, he insisted can be curbed when teachers meaningfully attend workshops.

However, findings also reveal that the respondents to a low extent admitted that low performance of teachers were as a result of lack of re-training exercise and that to a high extent, professional training made teachers conversant with summative and formative evaluation. Alabi (2011) supported this claim, but held that most teachers found in classroom nowadays were not product of education. Due to unemployment ravaging the economy, they saw teaching as their last resort. This therefore calls for periodically update of teachers' knowledge and this could be achieved through re-training exercise.

Analysis in table four sought extent to which professional development of teachers on classroom management impacts teaching and learning. Findings show that to a high extent discipline and democratic virtues had great impact on teaching and learning. Similarly, Anuna (2010) held that a democratic teacher is loved by his students and this adds more interest to teaching and learning. He reminded teacher educators that leadership virtues should be included in the training of teachers at their college level to help teachers identify with pupils and their needs during curriculum implementation.

Recommendations

Based on the findings, the researcher recommends the following;

1. Workshops organized for re-training exercise for teachers should be fully equipped with different instructional materials so that teachers get familiar with them and know their use in classroom.
2. Teachers should also be sensitized on best teaching methods to adopt during teaching and learning as this would make it easy for students to understand what was taught on daily basis.
3. Secondary school teachers should be encouraged not only to be conversant with evaluation strategies but their application in the three educational domains during and after teaching for the improvement of learning performance among students.
4. Due to innovations ongoing at the education industry, teachers should not depend on previous knowledge of classroom management during their professional training at the teacher training college days. Teachers should be updated on best classroom management practices to be adopted through

seminars, media that they may manage students and other resources in the classroom effectively.

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