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Influence of Professional Development Programmes on Basic School Teachers' Classroom Practices In North-Central Nigeria

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Abstract: This paper evaluates the influence of PDP on Basic School Teachers' Classroom Practices in North-Central, Nigeria. The study adopted a descriptive survey design. In selecting samples for this study, 746 basic school teachers were purposively selected from 84 sampled Basic Schools across three sampled states using stratified sampling technique out of the six states and Federal Capital Territory, Abuja. The Questionnaire "Influence of Professional Development Programmes "(IPDP) with reliability index of 0.74 was used. One - Way Analysis of Variance was used to test the hypothesis at 0.05 level of significance. The findings of the study revealed no significance influence of teachers' participation in PDPs on psychomotor and affective classroom practices based on experience ($F(2,724) = .018, p = .982$); and $F(2,724) = .628, p = .534$) were observed. Consequently, teachers' participation in PDPs had no significant influence in psychomotor and affective classroom practices based on years of experience. There is need to make the programme more effective in term of organization and implementation as antidotes to the hindrances confronting the PDPs in North-Central, Nigeria.

Keywords: Professional Development Programmes, Basic School Teachers, Classroom Practices

1. Introduction

As used throughout this study, classroom practices referred to what the Basic School Teachers do to effect professional transformation in the areas of cognitive, psychomotor and affective classroom practices of Basic School Teachers in North-Central, Nigeria after being exposed to PDPs. Cognitive domain deals with how a Basic Schools Teacher as a learner in PDPs acquires and utilizes the knowledge in his classroom practices. It is the "thinking" domain (Krathwohl & Bloom, 1993). This domain focuses on intellectual skills and is familiar to participants (i.e. Basic School Teachers) of PDPs. Bloom's taxonomy or classification such as knowledge, comprehension, application, analysis, synthesis, and evaluation is frequently used to describe the increasing complexity of cognitive skills as PDPs participants move forward from a beginner to more advance level in their

knowledge. Cognitive domain is the core of the classroom practices domain. The other two domains vis-à-vis affective and psychomotor require at least some of the cognitive components (Krathwohl & Bloom, 1993). The levels in the cognitive domain could be measured through: class discussions – refreshing previous lectures; organized class notes; tutorials; provide sufficient information through charts; power point slides; real time examples; project/problem based classroom practices; conducting course seminars; practical questions with answers.

Some of the cognitive statements by the participants after the completion of the PDPs might include the following: I have broadened my professional ethical knowledge as a result of my exposure to PDPs; I could handle innovations in curriculum after I took part in PDPs; my participation in PDPs has enabled me to have mastery of subject matter; my exposure to PDPs has improved my

manner of speech presentation; PDPs have made me to be confident and competent in my profession; through my participation in PDPs I have learnt how to prepare lesson notes; through PDPs I have improved in my lesson organization and so on (Guskey, 1968, Sandra, 2005, & John & Kay, 2006).

Classroom practices domains have always played an important role in evaluating the PDPs participants' knowledge and skills. The classroom practices domains can be incorporated, while designing the course classroom practices of all the courses in a PDPs (Krathwohl & Bloom, 1993). Bloom's taxonomy provides a consistent means of developing the single most powerful tool for the assessment of PDPs classroom practices - the classroom practices or performance objective.

A goal of Bloom's taxonomy is to motivate stakeholders of PDPs to focus on all the three domains, creating a more holistic form of professional development. Stakeholders of PDPs who are concerned with classroom practices theory have to give considerable thought to various types of classroom practices in PDPs (Krathwohl & Bloom, 1993).

Bloom (1956) divided the classroom practices into three domains: cognitive domain, psychomotor domain and affective domain. Within each domain are multiple levels of classroom practices that progress from more basic, surface-level classroom practices to more complex, deeper-level classroom practices (Krathwohl & Bloom, 1993). The level of classroom practices we strive to impact will vary across classroom practices experiences depending on (1) the nature of the experience, (2) the developmental levels of the participating Basic School Teachers and (3) the duration and intensity of the experience.

Bloom's taxonomy is a multi-tiered model of classifying thinking according to six cognitive levels of complexity. The levels have often been described as a ladder, leading many PDPs organizers to encourage the

participating teachers to climb to a higher level of thought. The lowest three levels are: Knowledge, comprehension, and application. The highest three levels are: analysis, synthesis and evaluation. The taxonomy is hierarchical; each level is combined by the higher levels. In other words, a PDP participant functioning at the 'application' level has also mastered the material at the "knowledge" and "comprehension" levels (Krathwohl & Bloom, 1993).

One can easily see how this arrangement led to natural divisions of lower and higher levels of thinking, and it is applicable to affective and psychomotor domains also. In 2001, a former student of Bloom, Lorin Anderson, led a new assembly, which met for the purpose of updating the taxonomy relevant to the 21st century learner. Design of classroom practices domain is carried out based on the inputs from cognitive psychologists, curriculum theorists and instructional researchers, testing and assessment specialists (Krathwohl & Bloom, 1993). The designed classroom practices domains are: Cognitive: Mental skills (knowledge), consisting six levels; Affective: Growth in feelings or emotional areas (attitude), consisting five levels; and Psychomotor: Manual or physical skills (skills), consisting seven levels.

The main areas of the Bloom's cognitive classroom practices according to Biehler, Robert & Snowman (1981) are as follows: Knowledge: These included; knowledge of specific terminologies, facts, ways and means of dealing with specifics, trends and sequences, classification criteria, methodology, universal, principles, generalization, theories and structures; Comprehension: These included; translation, interpretation, and explanation. PDPs would enable Basic School Teachers to be acquainted with the knowledge of stages of assessing the three domains.

The following hypotheses were tested in this study:

- H₀₁: There is no significant influence of participation in PDPs on psychomotor classroom practices of Basic School Teachers in North-Central, Nigeria based on experience;
- H₀₂: There is no significant influence of participation in PDPs on affective classroom practices of Basic School Teachers in North-Central, Nigeria based on experience.

2. Research Method

The descriptive survey design was used in this study. A descriptive research is a research type that involves systematic collection of data or information from population or sample of the population, through the use of personal interview and/or scale opinion questionnaire (Ibrahim, Landu & Opadokun, 2002). This research type was considered appropriate as it reports events the way they are. The investigation was primarily based on Basic School Teachers' cognitive, psychomotor and affective classroom practices in North-Central, Nigeria.

The population for this study comprised all Lower and Middle Basic School Teachers in North-Central geo-political zone, Nigeria. Public Lower and Middle Basic Schools were sampled because they are the foundations upon which all other levels of education are laid. The target population were all 109,886 teachers in 12,977 Public Lower and Middle Basic Schools (Primary 1-6) that participated in the MDGS PDPs between 2006 and 2011 in the zone. The zone consists of Benue, Kogi, Kwara, Nassarawa, Niger, and Plateau States including Federal Capital Territory-Abuja.

Multistage sampling technique was used to select sample for this study. At the first stage, simple random sampling technique was adopted in selecting three (3) states within the zone. The three states sampled were Kogi, Kwara and Niger States.

Each of the three states had three Senatorial Districts. In order to ensure that each of the Senatorial District was equally represented in the study, simple random

sampling technique was used to select two (2) Local Government Areas from each of the Senatorial Districts in each of the three states. It was a sampling procedure in which a researcher purposely selects certain groups as samples because of their relevance to the investigation under consideration. That is, a researcher can purposively sample respondents if the researcher found attributes of interest in them or if they are relevant to the current study (Daramola, 2006).

At the third stage, stratified sampling technique was adopted to select 84 Public Lower and Middle basic (primary schools) Schools across the eighteen (18) sampled Local Government Areas (LGAs). Stratified sampling is a situation where the researcher divides the population into subgroups or strata and then randomly selects the final subjects proportionally from the different strata (Daramola, 2006). It is a better method when there are different such groups. Therefore, stratified sampling technique was used because the teachers were scattered across the eighteen (18) sampled Local Government Areas. Finally, purposive sampling technique was used to select only the teachers that participated in the MDGS PDPs between 2006 and 2011.

The sample size that was selected was based on Research Advisors (2006) that stated that from a population of 100,000-250,000 at significant level/confidence of 95% and margin of error 3.5%, 782 respondents are appropriate. As such, 782 respondents were sampled for this study. However, only 746 respondents were actually involved at the end of the data because some of the questionnaire being given to them remained unreturned while a few were incompletely and wrongly filled, hence the reduced number of respondents from 782 to 746. The demographic data were used to identify the nature of the teachers that participated in PDPs between 2006 and 2011 MDGS PDPs.

The instrument that was used for this study was researcher's designed

questionnaire titled: "Influence of Professional Development Programmes (IPDPs)" which was found appropriate for a descriptive survey design research type. The questionnaire had two sections; A and B. Section 'A' was aimed at obtaining the demographic characteristics of the respondents such as; state, schools, Basic Schools level, gender, qualifications, years of experiences and levels of participation in PDPs. While section 'B' contains questions aimed at obtaining self-evaluation of respondents concerning the Influence of Professional Development Programmes on Basic School Teachers' Cognitive, psychomotor and affective Classroom Practices in North-Central, Nigeria. That is, Cognitive (items 1-9) Psychomotor (items 10-14) and Affective (items 15-25), domains classroom practices.

The items on the instrument took on a Likert-type Scale format, ranging from Strongly Agree to Strongly Disagree.

- Strongly Agree (SA) - 4 points
- Agree (A) - 3 points
- Disagree (D) - 2 points
- Strongly Disagree (SD) - 1 point

The questionnaire was administered on 782 sampled Basic School Teachers in the selected 84 Lower and Middle Basic Schools in the three states. Some questionnaire was unreturned while a few others were incompletely and wrongly filled, hence the reduced number of questionnaire from 782 to 746. This implies that the percentage return rate was 95%.

Face and content validity of the instrument were carried out for this study. It was done by giving the researcher-designed questionnaire for examination to the lecturers in the Department of Social Sciences Education, University of Ilorin who were experts in test construction. The project supervisor made the final assessment and gave his approval.

The reliability of the instrument was established by using internal consistency method of testing reliability of an instrument.

To do this, the questionnaire was administered once using to 40 Lower and Middle Basic Schools teachers in two schools in Federal Capital Territory, Abuja which was not part of the three sampled states of this study but also found in the North-Central geopolitical zone. The data collected yielded a Cronbach Alpha of 0.74 which was considered very high for the purpose of this study.

The data collected were analyzed using both the descriptive and inferential statistics. Socio-demographic variables of research questions 1 to 4 were presented using frequency count and percentage. Six research hypotheses were postulated and tested in line with the purpose of this study using One Way ANOVA statistical technique at 0.05 level of significance.

3. Results and Discussion

H_{01} : There is no significant influence of participation in PDPs on psychomotor classroom practices of Basic School Teachers in North-Central, Nigeria based on experience.

In order to test this hypothesis teachers' response on items measuring psychomotor classroom practices were and cummulated. The scores were subjected to One Way ANOVA using experience as a factor. The result is presented in the following Table.

Table 1: One-Way Analysis of Variance Test of Significant Influence of Participation In PDPS on Psychomotor Classroom Practices of Basic School Teachers In North-Central, Nigeria Based on Experience

| Source of Variance | Sum of Squares | df | Mean Squares | F | Sig. | Remark |
|--------------------|----------------|-----|--------------|------|------|---------------|
| Between Groups | .312 | 2 | .156 | | | |
| Within Groups | 6398.029 | 724 | 8.837 | .018 | .982 | Do not reject |
| Total | 6398.341 | 726 | | | | |

Table 1 shows a one –way between groups analysis of variance conducted to explore the influence of participation in PDPs on psychomotor classroom practices of Basic School Teachers in North-Central, Nigeria based on years of teaching experience. As shown in the result, there was no statistically significant influence of participation in PDPs

on psychomotor classroom practices of Basic School Teachers in North-Central, Nigeria based on experience as determined by one-way ANOVA $F(2,724) = .018, p = .982$). Since the p-value is greater than .05, we therefore do not reject the stated null hypothesis. This result concludes that there is no significant influence of participation in PDPs on psychomotor classroom practices of Basic School Teachers in North-Central, Nigeria based on years of teaching experience.

H₀₂: There is no significant influence of participation in PDPs on affective classroom practices of Basic School Teachers in North-Central, Nigeria based on experience. In order to test this hypothesis teachers' response on items measuring affective classroom practices were and cummulated. The scores were subjected to One Way ANOVA using experience as a factor. The result is presented in the following Table.

Table 2: One-way analysis of variance test of significant influence of participation in PDPs on affective classroom practices of Basic School Teachers in North-Central, Nigeria based on experience

| Source of Variance | Sum of Squares | df | Mean Squares | F | Sig. | Remark |
|--------------------|----------------|-----|--------------|------|------|---------------|
| Between Groups | 39.418 | 2 | 19.709 | | | |
| Within Groups | 22711.897 | 724 | 31.370 | .628 | .534 | Do not reject |
| Total | 22751.315 | 726 | | | | |

Table 2 shows a one –way between groups analysis of variance conducted to explore the influence of participation in PDPs on affective classroom practices of Basic School Teachers in North-Central, Nigeria based on years of teaching experience. As shown in the result, there was no statistically significant influence of participation in PDPs on cognitive classroom practices of Basic School Teachers in North-Central, Nigeria based on experience as determined by one-way ANOVA $F(2,724) = .628, p = .534$). Since the p-value is greater than .05, we therefore do not reject the stated null hypothesis. This result concludes that there is no significant influence of participation in PDPs on affective

classroom practices of basic School Teachers in North-Central, Nigeria based on years of teaching experience.

The first hypothesis showed that there was no significant influence of participation in PDPs on psychomotor classroom practices of Basic School Teachers in North-Central, Nigeria based on years of teaching experience. This hypothesis was accepted. This finding supported the finding of Gallant (2000) that both experienced and inexperienced Basic School Teachers were not prepared to handle psychomotor classroom practices especially the usage of modern technology. The resent introduction of technology in the classroom is probably one of the most challenging innovations that many teachers have to confront in Nigeria today and North-Central in particular. This finding was also in agreement with the findings of Adenipekun, (2006) that some Basic Schools' administrators that introduced computers for use in their classrooms as teaching aids offered no training to their teachers on how to use them effectively. Such teachers found it difficult in handling modern technology in the course of PDPs and the classroom situations. This, perhaps, was the reason for divergent opinion between experienced and inexperienced teachers on the influence of PDPson psychomotor classroom practices in North-Central, Nigeria.

Also, this finding was in agreement with the finding of Justus and Hellen (2017) that experienced teachers agreed that psychomotor classroom practices in form of laboratories, sports, dramas, practical works, extra curriculum activities and so on in the course of PDPs help them acquire knowledge and skills such as science concepts, principles, and laws through experimentation which involves observations, measurements, classifications, recording data, formulating hypotheses, designing experiments and controlling variables; team work spirit; being creative and so on (Justus and Hellen, 2017).

The second hypothesis revealed that there was no significant influence of

participation in PDPs on affective classroom practices of Basic School Teachers in North-Central, Nigeria based on years of teaching experience. This hypothesis was not rejected. This finding negated the findings of Hustler (2003) that asserted clear general differences which appeared between inexperienced teachers and experienced teachers. Experienced teachers enjoined professional development and career planning through traditional normal regular training courses in teachers' educational institutions. On the contrary, many inexperienced teachers accepted that PDPs met their individual affective classroom practices. They saw PDPs needs as reasonable and also canvassed for more opportunities to attend such programmes.

Likewise this finding did not support the findings of Kay and John (2006) that for the ultimate outcome of change in practice to be achieved, most participants in the PDPs have given a positive meaning to the value of changes advocated, and generally one that was in harmony with the affective aim of PDPs. This notion of value congruence as a PDPs outcome shares many things in common with what has often been termed the 'moral purposes' of teaching (Fullan, 1993).

4. Conclusion

Conclusively, teachers' participation in PDPs had no significant influence in psychomotor and affective classroom practices based on years of experience. The PDPs were confronted with some challenges which constitute great hindrances to the successful implementation of the programmes in North Central, Nigeria. For instance, there was ample evidence from the study that PDPs in term of the provision of psychomotor and affective domains classroom practices were grossly inadequate. In addition, both the experienced and inexperienced Basic School Teachers were not prepared to handle psychomotor classroom practices especially the usage of modern technology. Also, contrary to the view of inexperienced

teachers, experienced teachers enjoined professional development and career planning through traditional normal regular training courses in teachers' educational.

The fact that there was no significant influence of teachers' participation in PDPs on psychomotor and affective classroom practices of Basic School Teachers in North-Central, Nigeria, based on years of experience, shows that there is need to make the programmes more effective in term of organization and implementation by including more psychomotor, and affective activities in the curriculum content.

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