

**INFLUENCE OF TEACHERS' PROFESSIONAL
DEVELOPMENT ON STUDENTS' ACADEMIC ACHIEVEMENT
IN SECONDARY SCHOOLS IN BENUE AND NASARAWA
STATE, NIGERIA**

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Abstract

This study investigated the influence of teachers' professional development on students' academic achievement in secondary schools in Benue and Nasarawa State. Two research questions and two hypotheses guided the study. Descriptive survey research design was adopted for the study. The population of the study comprised 8,335 teachers from 709 secondary schools in Benue and Nasarawa State of Nigeria. A sample of 417 teachers was used for the study. A 10-item structured questionnaire developed by the researcher titled "Influence of Teachers' Professional Development Questionnaire (ITPDQ)" was used for data collection. Descriptive statistic of mean and standard deviation were used to answer the research questions while the chi-square (χ^2) test of goodness of fit was used to test the hypotheses at .05 level of

significance. The findings indicated that teachers' attendance to conference and workshop has significant influence on students' academic achievement in secondary school in Benue and Nasarawa State. It was recommended among others that government should endeavour to provide adequate funds for sponsorship of teachers on workshops and seminars so as to enhance students' better academic achievement in schools.

Keywords: Teachers' professional development, students' academic achievement, conference workshop

The success or failure of students in secondary schools rests on the quality of instruction received from teachers who are professionally developed and not lack of students' learning abilities (Mills, 2009). In order to ensure better academic achievement of students through teaching and learning processes, teachers are expected to have in-depth knowledge of the pedagogy in their subject areas to be able to understand the effective ways of organising and presenting subject matter (objective statements, providing the right methods, learning experiences and learning resources), and evaluating teaching and learning activities in consonance with the set objectives (Ayeni, 2010). Ayeni further opined that the educational enterprise involves development of human intellect, technical skills, character and effective citizenship. Consequently, the issue of students' academic performance in education becomes a matter of interest to government, educational institutions and other stakeholders in order to meet expectations of the society at large.

Academic achievement is described as the relative positions of students learning outcomes to a set objective of a curriculum (Stinebrickner and Stinebrickner, 2009). Hanson (2010) defined academic achievement in terms of the amount of gain in knowledge of students as a result of being exposed and taking part in a curriculum package. In this study, Academic achievement is described based on academic ability level of a student. Ability level is defined in terms of a students' relative achievement of the curriculum among others in a class. It is often categorized into high and low ability levels. While high ability refers to those that score above 60 percentages in tests, low ability refers to those that score less than the 40 percentile (Hanson, 2010). Mehta (2006) defined academic achievement as "academic performance which includes curricular and co-curricular performance of the students. It indicates the learning outcomes of students.

Commenting on the importance of teachers in school, Ayeni (2010) opined that teachers are known to be responsible for the translation and implementation of educational policies. These depend on professional practice. Teachers who are deficient in professional practice are not likely to help the students meet the challenges of learning. For instance, Ayeni and Akinola (2008) found that 57% of teachers in secondary schools in Ondo State were not given adequate training opportunities by their

principals while facilities to improve their professional competence through in-service training were not adequately provided. This constituted encumbrance to students' academic achievement in school.

In the opinions of Ajewole and Okebukola (2000), there are a number of factors that contributes to students' poor academic achievement in school. Ajewole and Okebukola further stated that a host of these factors include: poor study habits and lack of available resource materials, poor school climate, indiscipline, inadequate facilities and lack of teachers' professional development leading to their ineffectiveness which is the most concern of this study.

Teachers' professional development is conceived as the sum total of formal and informal learning pursued and experienced by the teacher in a compelling learning environment under conditions of complexity and dynamic change (Fullan, 2005). According to Fullan (2005), a common underpinning assertion of the above definitions is continuing learning process, by which serving teachers acquire the knowledge, skills and values to sustain the desired spark of intellectual vitality, which will improve the quality of teaching and students' academic performance.

Akinwale (2009) identified approaches to professional development such as: seminars, induction courses, workshops, conferences and symposia's in educational matters. In the same vein, Usoro (2010) agreed that in-service training, seminars, workshops and conferences enable employees to bridge the gap between the skills learnt and the one they are expected to perform. This gives help to boost their job performance as well as enhance students' academic achievement in school. Conversely, Banjo (2007) asserted that adequate training of teachers in the latest methodology, to a large extent, determines how the learner learns during instructional activities. In the opinions of Maduekwe and Ajibola (2007), in spite of the fact that most of the teachers have teaching qualifications, many of them do not have adequate knowledge of some concepts and they end up imparting the wrong knowledge to their students.

Ayeni (2010) posited that in Nigeria, teachers are expected to have sound knowledge of their subject areas to be able to select appropriate and adequate facts for planning their lesson notes, effective delivery of lessons, proper monitoring and evaluation of their students' performance, providing regular feed-back on their students' performance, improvisation of instructional materials, adequate keeping of records and appropriate discipline of their students. Professional development affects students' achievement through three steps. First, professional development enhances teacher knowledge, skills, and motivation. Second, better knowledge, skills, and motivation improve classroom teaching. Third, improved teaching raises student interest (Yoon, 2008). This implied that if one link is weak or missing, better students leaning may be affected. Yoon, (2008) submitted further that, if a teacher fails to apply new ideas from professional development to classroom instruction, students will not benefit from the teacher's professional development. In other words, Yoon noted that the effect of

teacher professional development on students' learning is possible through two mediating outcomes: Teachers' learning and instruction in the classroom.

Conference is a teacher professional development variable that educational stakeholders have in recent times expressed concern about especially as it seems to determine students' academic achievement in school. According to Ojokheta (2000), conference is the process used by many teachers to update their knowledge through sponsorship by their institutions. In the contemporary society, secondary schools hardly sponsor their teachers to attend conferences so as to learn new ideas of things, improve their skills and come back to perform well to the actualization of the school goals. This does not go well with the students as learning of new things is not possible. Participation in training programmes and sharing the experience to colleagues and conferences do predict academic achievement. Students whose teachers are active, always trying to improve their qualification and share experience has high academic achievement, we can assume that such school culture and healthy environment do empower students for learning (Mzia, Martskvishvili and Aptarashvili, 2011).

Workshop is another variable of teachers' professional development which seems to influence students' academic achievement in secondary schools as pointed out by some relevant educational stakeholder in the study area. According to Ojokheta (2000), workshop is a form of training organized by institution of learning for the purpose of making teachers acquires new knowledge, better methods among others for improving their skills towards more effective, efficient and competent rendering of service in various fields and to diverse groups of people. In most secondary schools today, workshops are hardly organized for teachers, thus making them in effective in teaching which tends to influence students' academic achievement. Essien, Akpa and Obot (2016) found that there exists positive and small relationship between the frequencies of teachers' attendance at workshops on students' academic achievement in social studies. Similarly, Okon and Anderson (2002) opined that teachers' professional development programmes such as: seminars, workshops, help to foster continued professional growth. These help teachers to keep abreast with new developments in their field which help to enhance students' academic achievement in schools.

Teachers' professional development is informed by the fact that if teachers are to perform well on their teaching responsibilities, they must have opportunities for continuing professional development programmes, advancement and improvement in their chosen career. This lack of teachers' professional development may seem to cause set-back in students' academic achievement. Such developments may have been the case with many secondary schools in Nigeria of which the area of study seems not to be an exception. It is against this background that the researcher deemed it necessary to investigate the influence of teachers' professional development on students' academic performance in secondary schools in Benue and Nasarawa State with particular focus on conferences and workshops.

Statement of the Problem

Concern has been expressed by relevant educational stakeholders in the study area on the issue of teachers' professional development which may have been responsible for poor academic achievement of students in secondary schools. Public observation by concerned individuals in the study area revealed some academic achievement irregularities noticed in students, in continuous assessment, internal and external examinations. Evidence of such can be seen from mass failure of students in such examinations in most secondary schools today.

Hypothetical cases of students' poor academic achievement can also be seen from May/June 2014 WAEC result that out of the 1,692,435 candidates that sat for the examination, only 529,425 candidates representing 31.28% obtained credits in five subjects including English Language and Mathematics. It then means that the remaining 1,163,010 candidates representing 68.72% of the total candidates that sat for the examination were likely to re-write the examination if they were to meet the university requirement. Comparing this with the 2012 and 2013 May/June result he noted that there is a marginal decline in the performance of candidates as 38.8% was recorded in 2012 and 36.57% in 2013. Also in 2011 May/June Senior School Certificate Examination conducted by the West African Examination Council, only 30.99% of the 1,540,250 candidates obtained credit pass and above in five subjects including English Language and Mathematics in the 36 states of the federation and the Federal Capital Territory (Eguridu, 2014).

The researcher also personally observed that most students in secondary schools today in the study area hardly can read and write or speak good English. Some hardly can even give a better direction as to what they want to further in education. In respect to the above, one may ask, what could be the reason behind students' poor academic achievement in these areas mentioned, is it that principals are not supervising teachers well? Or could it be solely attributed to lack of teachers' professional development in secondary schools? This study sets out to critically investigate the situation in Benue and Nasarawa State where principals and teachers seem to be largely held accountable for poor and academic achievement of students. Thus, the problem of this study stated in question form therefore is: In what ways does teachers' professional development influence students' academic achievement in secondary school in Benue and Nasarawa States?

Purpose of the Study

The main purpose of this study was to examine the influence of teachers' professional development on students' academic achievement in secondary schools in Benue and Nasarawa States of Nigeria. Specifically, the study sought to:

1. Determine the influence of conference on students' academic achievement in secondary school in Benue and Nasarawa State of Nigeria.

2. Ascertain the influence of workshops on students' academic achievement in secondary school in Benue and Nasarawa States of Nigeria.

Research Questions

The study was guided by the following research questions.

1. What is the influence of conference on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria?
2. What is the influence of workshop on students' academic achievement in secondary schools in Benue and Nasarawa States of Nigeria?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

- Ho₁. Conference has no significant influence on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria.
- Ho₂. Workshop has no significant influence on students' academic achievement in secondary schools in Benue and Nasarawa States of Nigeria.

Methodology

The study adopted descriptive survey design. A descriptive survey design according to Olaitan, Ali, Eyo and Sowande (2002) is a design that employs the study of a sample of large population to discover the relative incidence, distribution and interrelations of sociological and psychological variables through the use of interview or questionnaire. The study is confined to secondary schools in Benue and Nasarawa State. The population of the study comprised 8,335 teachers from 709 secondary schools in Benue and Nasarawa State of Nigeria. A sample of 417 teachers was used for the study. A 10-item structured questionnaire developed by the researcher titled "Influence of Teachers' Professional Development Questionnaire (ITPDQ)" was used for data collection. The respondents were guided with the modified four point rating scale with a response mode of Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1. The questionnaire was validated by two experts in Educational Management and one in Measurement and Measurement from the Faculty of Education, Benue State University, Makurdi. A pilot study was conducted on 30 teachers in two secondary schools that were not part of the sample for the study and a reliability coefficient of .88 was obtained after analysis of the data collected which indicated that the instrument was reliable for usage. Descriptive statistics of mean and standard deviation were used to answer the two research questions. A mean cut-off point of 2.50 was used for decision making. Any mean score of 2.50 and above was regarded as having the desired influence while any mean score below 2.50 was regarded as not having influence. The hypotheses were tested using chi-square (χ^2) test of goodness of fit at .05 level of significance.

Results and Findings

This section presented and discussed the results of the study.

Research Question One

What is the influence of conference on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria?

Table 1: Mean Ratings and Standard Deviations of the Respondents on the influence of Conference on Students' Academic Achievement in Secondary Schools in Benue and Nasarawa State of Nigeria

| Item No | Item Description | SA | A | D | SD | \bar{X} | SD | Decision |
|---------------------|--|-----|-----|----|----|-------------|------|--------------|
| 1 | Teachers who regularly attend conferences know appropriate use of teaching methods that enhances students' academic achievement in test. | 210 | 168 | 15 | 24 | 3.35 | 0.80 | Agree |
| 2 | Students have better knowledge of a subject and earn better scores in internal examinations when taught by teachers who regularly attend conference. | 223 | 159 | 12 | 23 | 3.40 | 0.79 | Agree |
| 3 | Teachers who do not attend conferences lack the ability to teach students well that makes them earn good grades in external examinations. | 237 | 140 | 21 | 19 | 3.43 | 0.79 | Agree |
| 4 | Teachers who do not have opportunity to attend conferences end up teaching students using only old ideas which makes them fail external examinations. | 219 | 182 | 5 | 11 | 3.46 | 0.66 | Agree |
| 5 | Students who are taught by teachers who regularly attend conferences are always abreast with new concepts in subject thus making them pass their external examinations with good grades. | 213 | 173 | 20 | 11 | 3.41 | 0.71 | Agree |
| Cluster Mean | | | | | | 3.41 | | Agree |

Data on Table 1 showed that the mean rating for items 1-5 were 3.35, 3.40, 3.43, 3.46 and 3.41 respectively with their corresponding standard deviations of 0.80, 0.79, 0.79, 0.66 and 0.71. Based on the decision rule, it means that respondents accepted all the items in the cluster that have mean scores above the cut-off point of 2.50. The standard deviation scores of the respondents are small signifying homogeneity for the items raised. The cluster mean of 3.41 was also found to be above the cut-off point of 2.50. This implies that conference influence students' academic achievement in secondary schools in Benue and Nasarawa States of Nigeria.

Research Question Two:

What is the influence of workshop on students' academic achievement in secondary schools?

Table 2: Mean Ratings and Standard Deviation of the Respondents on Influence of Workshop on Students' Academic Achievement in Secondary Schools in Benue and Nasarawa State of Nigeria

| Item No | Item Description | SA | A | D | SD | X | SD | Decision |
|---------------------|---|-----|-----|----|----|-------------|------|--------------|
| 6 | Teachers who are privilege to attend workshops acquire new and better knowledge in a subject to teach the students which affects their academic achievement in terminal examinations. | 186 | 194 | 21 | 16 | 3.32 | 0.74 | Agree |
| 7 | Students who end up graduating in school half baked is because of been taught in school by teachers who do not attend workshops. | 207 | 137 | 30 | 41 | 3.23 | 0.96 | Agree |
| 8 | Teachers acquire better skills in teaching the students to understand and do well in examinations when they regularly attend workshops. | 188 | 175 | 29 | 25 | 3.26 | 0.83 | Agree |
| 9 | Teachers who regularly attend workshops inspire students better in their studies which make them do well in external examinations. | 217 | 171 | 11 | 18 | 3.41 | 0.75 | Agree |
| 10 | Most students perform poorly in information technology when taught by teachers who do not regularly attend workshops. | 173 | 178 | 21 | 45 | 3.15 | 0.94 | Agree |
| Cluster Mean | | | | | | 3.27 | | Agree |

Table 2 indicated that the mean ratings for items 6–10 were 3.32, 3.23, 3.26, 3.41 and 3.15 with their corresponding standard deviations of 0.74, 0.96, 0.83, 0.75 and 0.94.

Based on the decision rule, it means that respondents accepted all the items in the cluster that have mean scores above the cut-off point of 2.50. The standard deviation scores of the respondents are small signifying homogeneity for the items raised. The cluster mean of 3.27 was also found to be above the cut-off point of 2.50. This implies that workshop influence students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria.

Hypotheses Testing

Hypotheses One:

Conference has no significant influence on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria.

Table 3: Chi-square test of the Influence of Conference on Students' Academic Achievement in Secondary Schools in Benue and Nasarawa State of Nigeria

| Opinions | Observed N | Expected N | Residual | Level of Sig. | df | χ^2 -cal | P-value | Decision |
|--------------|------------|------------|----------|---------------|----|---------------|---------|----------|
| SD | 23 | 104.3 | -81.3 | 0.05 | 3 | 304.37 | 0.00 | Sig. |
| D | 12 | 104.3 | -92.3 | | | | | |
| A | 163 | 104.3 | 58.8 | | | | | |
| SA | 219 | 104.3 | 114.8 | | | | | |
| Total | 417 | | | | | | | |

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 104.3.

Table 3 revealed that $\chi^2=304.37$ at $df=3$ and $p = 0.00$. Since p -value of $0.00 < 0.05$ at 3 degree of freedom, the null hypothesis which states that conference has no significant influence on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria is therefore, rejected. This implies that conference has significant influence on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria.

Hypotheses 4:

Workshop has no significant influence on students' academic achievement in secondary schools.

Table 4: Chi-Square test of the Influence of Workshop on Students' Academic Achievement in Secondary Schools in Benue and Nasarawa State of Nigeria

| Opinions | Observed N | Expected N | Residual | Level of Sig. | df | χ^2 - _{calc} | P-value | Decision |
|--------------|------------|------------|----------|---------------|----|----------------------------|---------|----------|
| SD | 25 | 104.3 | -79.3 | 0.05 | 3 | 253.49 | 0.00 | Sig. |
| D | 21 | 104.3 | -83.3 | | | | | |
| A | 183 | 104.3 | 78.8 | | | | | |
| SA | 188 | 104.3 | 83.8 | | | | | |
| Total | 417 | | | | | | | |

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 104.3.

Table 4 revealed that $\chi^2 = 253.49$ at $df = 3$ and $p = 0.00$. Since p -value of $0.00 < 0.05$ at 3 degree of freedom, the null hypothesis which states that workshop has no significant influence on students' academic achievement in secondary schools is therefore, rejected. This implies that workshop has significant influence on students' academic achievement in secondary schools in Benue and Nasarawa States of Nigeria.

Discussion of Findings

The first finding of the study on research question indicated that conference influence students' academic achievement in secondary schools in Benue and Nasarawa States of Nigeria where as that of hypothesis one confirmed that conference has significant influence on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria. This result is in agreement with the opinion Ojokheta (2000) who stated that conference is the process used by many teachers to update their knowledge through sponsorship by their institutions. In the contemporary society, secondary schools hardly sponsor their teachers to attend conferences so as to learn new ideas of things, improve their skills and come back to perform well to the actualization of the school goals. This does not go well with the students as learning of new things is not possible. In a similar support to the finding, Mzia, Martskvishvili and Aptarashvili (2011) asserted that participation in training programs and sharing the experience to colleagues and conferences do predict academic achievement. Students whose teachers are active, always trying to improve their qualification and share experience has high academic achievement, we can assume that such school culture and healthy environment do empower students for learning.

The second finding of this study on research question two revealed that workshop has significant influence on students' academic achievement in secondary schools. This also corroborate with the finding on hypothesis two which indicated that workshop has significant influence on students' academic achievement in secondary schools in Benue and Nasarawa States of Nigeria. This finding corroborate with the views of Ojokheta (2000) which stated that workshop is a form of training organized by institution for the purpose of making teachers acquires new knowledge, better methods

among others for improving their skills toward more effective, efficient and competent rendering of service in various fields and to diverse groups of people. In most secondary schools today, workshops are hardly organized for teachers, thus making them ineffective in teaching which tends to influence students' academic achievement. Corroboratively with the finding, Essien, Akpa and Obot (2016) found that there exists a positive and small relationship between the frequencies of teachers' attendance at workshops on students' academic achievement in social studies. Similarly, Okon and Anderson (2002) opined that teachers' professional development programmes such as: seminars, workshops, help to foster continued professional growth. These help teachers to keep abreast of new development in their field which help to enhance students' academic achievement in schools.

Conclusion

Based on the results of the study, it was concluded that conference and workshop has significant influence on students' academic achievement in secondary schools in Benue and Nasarawa State of Nigeria.

Recommendations

Based on the findings of this study, it was recommended as follows;

1. Government should encourage teachers by providing fund to schools that could be used to sponsor teachers to go for conferences so as to update their knowledge and teacher the students in a manner that their academic achievement would be enhanced.
2. Appropriate school authorities should from time to time organize workshop for their teachers so as to keep them abreast of innovations in their respective areas of specialization so as to enable them positively affect students' academic achievement in school.

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