ACCESSING TEACHERS’ PRODUCTIVITY USING DEMOGRAPHIC CHARACTERISTICS IN PUBLIC SECONDARY SCHOOLS IN DELTA STATE

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ABSTRACT
This was conducted to access teachers’ productivity using demographic characteristics in public secondary schools in Delta State. It was a correlational survey which adopted ex-post-facto research design. Study population thirteen thousand three hundred and forty-two (13,342) teachers and a sample of 667 respondents were sampled using purposive sample method. Instrument titled Teachers’ Productivity and Demographic Characteristics Questionnaire (TPDCQ) was used to obtain information and was validated through face as well as content validity. The instrument was subjected to split-half reliability test and a coefficient of 0.71 was obtained. The data gathered were carefully converted to mean scores, standard deviation to answer the research questions raised while Pearson r was used to test the hypotheses formulated at 0.05 level of significance. Findings show that teachers’ sex, age and qualifications were significant to productivity. Arising from the findings it was recommended that government particularly in Delta State study try to consider age during recruitment of teacher for effective productivity. Entry qualifications of teachers should as a matter of urgent be determine if productivity is to be guaranteed.

KEYWORDS: Teachers, Productivity, Demographic Characteristics, Delta State.

INTRODUCTION
Education is a major contributing factor to the development of a nation or society. It functions as transmitter of culture from generation to another via its quality (Abarro, 2018). At any level, educational system depends heavily on teachers who execute programmes of instruction and this makes teachers highly indispensable for successful administration of the school and significant tools for the development of education (Ekperi, 2018). It is a general knowledge that teachers are the most vital factor in educational process and they are instrumental to the achievement of any educational programme embarked upon by government of a nation (Ekperi, 2018). The Federal Government of Nigeria however has made several attempts and enacted laws concerning the development of education. Among such efforts were laws concerning the recruitment and training of teachers which was done in order to achieve qualitative educational outcomes (Ekperi, 2018) but there are still some characteristics that affects teacher’s productivity and thereby reducing the quality of education. The National Policy on Education emphasizes that only qualified and skilled teachers should be recruited into the educational system of Nigeria (NPE, 2004). Abarro (2018) also stated that schools are...
represented by the teachers and teachers are the most important personalities in schools hence, they ought to be devoted in their job. To authenticate this dispute, it is important to determine the extent to which teachers are productive in their work. Categorically, the productivity can either be low or high in the field. However, there are certain causes of either low or high productivity. Fehintola (2014) posed that teacher’s behavioural traits is related to teachers’ effectiveness and students’ academic performance despite the differences in nomenclature. However, it is worthy of note to point out that the influence of teachers’ behavioural characteristics on teacher's productivity is not straight. Rather it is arbitrated by their impacts on the means by which teachers manage their classrooms (Fehintola, 2014).

In recent times, there has been an extensive interest in examining the factors responsible for the productivity of teachers. Researchers have revealed factors affecting teacher’s productivity to include; teachers’ attitude, intrinsic and extrinsic motivators, work-related stress, attitude, teaching methodology, subject mastery and teachers’ demographic characteristics (Gikunda, 2016; Wangui et al., 2016; Mruma, 2013; Ahmed et al., 2013) and these factors can be grouped into teacher/community-related factors and school related factors. In addition, Nadeem et al., (2011), posed that low socio-economic standing of teachers can also affect their productivity. Similarly, religious beliefs and academic performance also affects teachers’ productivity (Espino et al., 2011; Abarro, 2018).

Possession of the knowledge and skills needed to attain the goals is necessary for an effective teacher as well as the ability to utilize the knowledge and skills appropriately for the goals to be attained. The exercising of skills and knowledge in the classroom is known as teacher performance productivity. Thus, a link should be established between teachers’ behavioural characteristics, and teacher productivity (Fehintola, 2014). From the previous studies, the various factors affecting the teachers’ productivity is still uncertain. It can be seen that despite several researcher have conducted studies on factors affecting teachers’ performance, only few carried out research specifically on demographic characteristics affecting teachers’ productivity. Hence this study tends to fill this gap. This study therefore accessed teachers’ productivity using demographics characteristics with specific reference to teachers’ sex, age and qualifications.

**STATEMENT OF PROBLEM**

Teachers’ productivity has a great impact on curricular development and can also be trans-actors, hence how they perform has a great role in shaping the future of students (Shah and Udgaonkar, 2018). A teacher must have qualities like skill, experience, knowledge, decision making and passion in other to performance effectively. On the other hand, students possess their individual discernment for discrimination amongst various characteristics of the teachers, and this makes teaching a challenging job. One important feedback can be information regarding to a person’s productivity. It is a shared view that sex, age and qualifications have an effect on teachers’ performance but there has not been any research conducted on the subject matter particularly in Delta State public schools. It is generally assumed that higher the qualifications and age, the better the teacher’s productivity. However, in majority of the current studies different opinions of were revealed relating to teachers’ performance.
Hence this work tends to access teachers’ productivity using demographic characteristics with specific reference to sex, age and qualifications. The purpose of this study is to access teachers’ productivity using demographic characteristics in public secondary schools in Delta State.

**Research Questions**
The following research question were raised to guide this study:
1. What is the relationship between teachers’ sex and productivity in Delta State public schools?
2. What is the relationship between teachers’ age and productivity in Delta State public schools?
3. What is the relationship between teachers’ qualifications and productivity in Delta State public schools?

**Hypotheses**
The following null hypotheses will be tested in this study:
1. Teachers’ sex is not significant to productivity in Delta State public schools.
2. Teachers’ age is not significant to productivity in Delta State public schools.
3. Teachers’ qualifications is not significant to productivity in Delta State public schools.

**LITERATURE REVIEW**
**Teachers’ Sex and Productivity**
Studies have revealed that students preferred female as teachers, while fondness for male teacher was low. In terms of attributes like hard work, politeness, sincerity, efforts taken in preparing lectures, and high pitch audible voice quality, female teachers are preferred to male once although Usop (et al., 2013) in their study observed difference between fondness for male and female was statistically insignificant. Literature points out that female teachers are more productive, as students tend to be little biased to factors like view of concern shown by the teachers, better understanding and empathic listening (Ng & Feldman 2009). Bodhe and Jankar (2015) posed that teachers’ sex does not significantly affects productivity because sex of teacher is not discriminated by students. Shah and Udgaonkar (2018) posed that to draw the attention of students and be productive in facilitating and processing learning, first impression matters and a well-dressed, sparkling and well-ordered teacher produces a decent impression. From students’ remarks, female student interacts better with female teachers while few male students were brave enough to mention female teachers. However, male teachers have improved control of learning environment, and this is because majority of male teachers possess a better commanding strictness and nature. It was discovered in a study conducted by Shah and Udgaonkar (2018) that students expect male teachers to be more productive in terms of effectiveness in their work while the female counterparts should utilize more time in building compassionate interactions with students. Male teachers received higher appraisals if they established competency while female demonstrated competence as well as warmth to get the same high rankings. The above explains that female instructors are more productive because they have improved academic performance as well as more noncognitive outcomes for females when compared to male. When students are being educated by male teachers especially on non-cognitive consequences, the females
are mentally stressed with less satisfaction at school compared to males. This gender gap can be overturned by female teachers.

**Teachers’ Age and Productivity**

There have been several negative and positive views as regards teachers’ age and productivity. Teachers tend to lose enthusiasm to teach which generally reduces productivity as the advance in age and title is promoted. It can also be thought that experience and age go side by side. Age are a great quality because the higher the age, the higher the teachers’ experienced and this gives the potential to manage students and make them understand thereby increasing productivity (Shah and Udgaonkar 2018). There is a general view that teacher’s productivity declined with increase in age which can be caused by dullness of instruction of the same content repeatedly with additional responsibilities on administrative, academic and research aspects (Sinclair, 1972). Marsh and Roche (2000) revealed that senior staffs were respected more compared to junior staffs with the intentions that grades were determined by the senior staffs. However, younger teachers tried to replicate senior teachers, they strive to improve. Younger teacher utilizes audio-visual aids and other modern procedures for refining their teaching competences compared to senior once and this is in favour of younger teachers’ productivity. Despite the fact that experience increased with age, when the teaching enthusiasm is lost, there will be a minimal productivity. Shah and Udgaonkar (2018) in their study did not consider teachers’ age as important attribute for teachers’ productivity. From the ongoing review, it is clear that the students have their views and do not consider the teachers’ age as very important. It was suggested that teachers’ knowledge, clarity of idea, its concept and enlightenment, teachers’ self-confidence, the presentation of lecture notes and materials, the effective classroom command and control as well as use of appropriate audio-visual materials with fresh knowledge are more significant attributes which boosts productivity (Shah and Udgaonkar, 2018). Evaluations of teachers’ productivity may be prejudiced based on age and attractiveness of the evaluators themselves (Shauna and Wilson, 2015).

**Teachers’ Qualifications and Productivity**

A productive teacher is one who produces anticipated results in discharging their duties as a teacher (Uchefuna, 2001). There is controversy over the meaning of teacher education and what it does (Kafu, 2011). This can be trace back to colonial period when more importance was on pedagogy instead of training and improvement of school teachers and how the curricula were utilized. Therefore, there is need to broaden the teacher education curriculum to include areas that are being demanded by the modern, technologically-oriented society. This will ensure teachers are equipped with relevant competencies to manage emerging challenges in education and the society. Teacher qualifications has a great impact on pupil academic performance in schools. Teachers with higher qualifications tend to have a richer background of experience to which gives perception to teaching and learning, and are also open to correction, less dictatorial in classroom (Chokera, 2014) thereby increasing their productivity. Students who were taught by teachers’ higher qualifications succeed at higher level because the content have been mastered by teachers (Gibbons et al., 1997). Moreover, teachers with higher qualifications have more understanding of the course, and also know more about students, this
gives the teachers more ability to connect with students and hence benefit from the teachers’ experience in reconstructing their world (Chokera, 2014).

METHOD

This study is a correlational survey adopting the ex-post-facto research design. Population of the study consists of thirteen thousand three hundred and forty-two (13,342) teachers in Delta State secondary schools were a sample of 667 respondents were sampled using purposive sample method and represented 5% of the entire targeted population. The instrument that was used for the study is a self-developed questionnaire titled Teachers’ Productivity and Demographic Characteristics Questionnaire (TPDCQ) to solicit information on the variables of the study with two sections addressing the study’s variables. The response setup was created on four-point scale of Strongly Agree (SA = 4), Agree (A = 3), Disagree (D = 2) and Strongly Disagree (SD = 1). The respondents are to indicate their agreement by ticking (√) on the rating scale that is weighed 4, 3, 2, and 1 respectively. Face as well as content validity was used to validate the instrument. To ensure that the instrument measured considerably and consistently what it intended to measure, it was exposed to a split-half reliability test and a coefficient of 0.71 was obtained. The data gathered were carefully converted to mean scores, standard deviation to answer the research questions raised while Pearson r was applied to test hypotheses formulated at significance of 0.05.

RESULTS PRESENTATION AND DISCUSSION

Research Question 1: What is the relationship between teachers’ sex and productivity in Delta State public schools?

Table 1: mean score and SD showing relationship between teachers’ sex and productivity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>r</th>
<th>r²</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers Sex</td>
<td>1.39</td>
<td>.49</td>
<td>.732</td>
<td>.536</td>
<td>Positive Relationship</td>
</tr>
<tr>
<td>Teachers productivity</td>
<td>67.38</td>
<td>10.91</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Data in Table 1 shows mean scores and SD on relationship between teachers’ sex and productivity. The result of the study revealed mean scores of 1.39, SD=.49 for teachers’ sex, and 67.38, SD=10.91 for teachers’ productivity. The computed \( r = .732 \) signified a positive relationship between teachers’ sex and teachers’ productivity. The \( r^2 \) value of .536 indicates that teachers’ sex is related to teachers’ productivity by 53.6%.

Research Question 2: What is the relationship between teachers’ age and productivity in Delta State public schools?

Table 2: mean score and SD showing relationship between teachers’ age and productivity
Research Question 3: What is the relationship between teachers’ qualifications and productivity in Delta State public schools?

Table 3: mean score and SD showing relationship between teachers’ qualifications and productivity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>r</th>
<th>r^2</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers Qualifications</td>
<td>2.10</td>
<td>.91</td>
<td>.621</td>
<td>.386</td>
<td>Positive Relationship</td>
</tr>
<tr>
<td>Teachers productivity</td>
<td>67.38</td>
<td>10.91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 1: Teachers’ sex is not significant to productivity in Delta State public schools.

Table 4: Pearson (r) on relationship between teachers’ sex and productivity

<table>
<thead>
<tr>
<th>Teachers’ Sex</th>
<th>Pearson Correlation</th>
<th>Teachers’ Sex</th>
<th>Teachers Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Teachers’ Sex</td>
<td></td>
<td>667</td>
<td>667</td>
</tr>
<tr>
<td>Teachers’ Sex</td>
<td>.732*</td>
<td>1</td>
<td>.402</td>
</tr>
<tr>
<td>Teachers’ Productivity</td>
<td>Pearson Correlation</td>
<td>.732*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.402</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>667</td>
<td>667</td>
</tr>
</tbody>
</table>

* significant
Result in Table 4 shows that r value of .732 is significant at .402. This implies that teachers’ sex is significant to productivity in Delta State public schools. Thus, hypothesis one was rejected.

**Hypothesis 2:** Teachers’ age is not significant to productivity in Delta State public schools.

**Table 5: Pearson (r) on relationship between teachers’ age and productivity**

<table>
<thead>
<tr>
<th>Teachers’ Age</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>Teachers Productivity</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ Age</td>
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<td>667</td>
<td>Teachers Productivity</td>
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<td></td>
<td>667</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>667</td>
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<td></td>
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</tbody>
</table>

* significant

Result in Table 5 shows that r value of .911 is significant at .777. This implies that teachers’ age is significant to productivity in Delta State public schools. Thus, hypothesis two was rejected.

**Hypothesis 3:** Teachers’ qualifications is not significant to productivity in Delta State public schools.

**Table 6: Pearson (r) on relationship between teachers’ qualifications and productivity**

<table>
<thead>
<tr>
<th>Teachers’ Qualifications</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>Teachers Productivity</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ Qualifications</td>
<td>1</td>
<td></td>
<td>667</td>
<td>Teachers Productivity</td>
<td>.621*</td>
<td></td>
<td>667</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>667</td>
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</tbody>
</table>

* significant

Result in Table 6 shows that r value of .621 is significant at .581. This implies that teachers’ qualifications was significant to productivity in Delta State public schools. Thus, hypothesis three was rejected.
DISCUSSION OF RESULTS
Finding shows that teachers’ sex is significant to productivity in Delta State public schools. This finding is in line with Anumaka and Semugenyi (2013) who found that there was a slight difference in work productivity between male and female. However, this difference was too insignificant to pose a significant difference between the two categories (male and female). This finding is also in line with Ajala (2014) who posited that gender may affect work role and have ramifications for leadership training. According to the author, older male executive may be more communal in their work roles, while younger male managers are more agile. This finding is also in line with Coleman (2010); Minoo and Charles (2013) indicate that gender has a significant impact on the performance of micro-businesses. This finding is also in line with Orser and Foster (2012); Heck (2015) who found that there were significant differences on performance of small industry run by men and women. This finding is also in line with Coleman, (2010); Minoo and Charles (2013) indicate that gender has a significant impact on the performance of micro-businesses. This finding is also in line with Inmyxai and Takahashi (2010) who discovered that differences exist between gender headed firms and firm performance. This finding is also in line with Hassan and Ogunkoya (2012) believed that if given similar exposure, women were as capable as men. This finding is not in line with Olorunsola (2012) whose findings revealed that there was no significant difference between the job performance of male and female administrative staff in the universities. This finding is not also in line with Fauzilah (2012) who settles that there are no substantial differences between sales productivity and corporate traders’ gender.

Finding demonstrates that teachers’ age is significant to productivity in Delta State public schools. This finding supports Lourence (2010) who reported that older sales representatives in a US retail services company reacted more to monetary incentives and performance feedback and less to recognition, and vice versa for younger sales representatives. This finding also supports Fauzilah (2012) who concluded that insignificant differences exist between sales performance and corporate traders’ demographic features such as age. This finding also supports Lawrence, (2008) who stated that some of the common age discrimination issues of older workers are lower performance ratings if they are older than the age norm associated with their career progression and less opportunity for promotion if they are older than their manager. This finding also supports Gee (2017) who found that both younger and older workers face age discrimination and could impact on job performance. This finding also supports Ilmarinen (2015) who had shown that there was no distinct connection between age and work performance. This finding also supports Jaeyeop, Juhyung, Milim, Yunhee, DeokJu, Dongju and Yeongae (2015) who revealed that job performance in older employees increases not with the number of years worked but with the enhancement of cognitive ability.

Finding shows that teachers’ qualifications is significant to productivity in Delta State public schools. This finding supports Nkedishu (2020) who discovered that teachers’ qualifications was significant to
retention of quality and productivity of teachers. This finding disagrees with Ishola, Adeleye and Tanimola (2018) who reported that staff with professional qualifications reported more job performance than non-certified staff. Chokera, (2014) revealed that teachers with higher qualifications have more understanding of the course, and also know more about students, this gives the teachers more ability to connect with students and hence benefit from the teachers’ experience in reconstructing their world.

CONCLUSION AND RECOMMENDATIONS

Conclusively, this study has demonstrated that teachers’ productivity is dependant on demographic characteristics such as sex, age and qualifications in public secondary schools in Delta State. Sex of a teachers could determine how productive the teacher could be. It is a general believe that male gender is usually stronger than their female counterpart. This assertion could be true, since female are faced with a lot of domestic duties which could impact on the job productivity. Age could be a number but younger teachers seem to have more energy to perform their duties than older ones. This could be as a result of health challenges most elderly persons face. This could predict their strength to withstand job pressure. Also, qualifications may go a long way to determine teachers job productivity. There is a general notion that the more an individual study, the more the responsibilities that comes with it. Thus, the statistical analysis which proved that qualifications was significant to teachers’ productivity could be true. It is therefore recommended that government predominantly in Delta State study try to consider age during recruitment of teacher for effective productivity. Entry qualifications of teachers should as a matter of urgency be determined if productivity is to be guaranteed. Female teachers should be given less responsibilities in schools to enable them to be productivity.

REFERENCES


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