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Psychometric Instruments Review and Usage Adaptation among Nigerian Study Populations in Work-Family Conflict Studies: Case Study of the University of Benin, Benin City, Nigeria

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Abstract
The purpose of this paper is to review some Psychometric instruments commonly utilised in the Work-Family Conflict Studies and to adopt them for use among the Nigerian study populations. Broadly speaking, the majority of the Psychometric instruments used in conducting research in Africa vis-a-viz, Nigeria are alien and foreign to these researchers. In order to have to be validated to suit local use, this is the gap, vacuum and loophole that this study seeks to fill. Validity and reliability analyses of these Psychometric instruments for use among the Nigerian populations were determined by administering the questionnaires on a sample of 100 participants randomly selected from 375 staff of the University of Benin, Benin City South-South Nigeria and whose results were not included in the main study. Validity and reliability analyses were evaluated with the Cronbach alpha coefficient by utilising the IBM statistical package for the social scientists (IBM SPSS) version 22 for windows with an alpha correlation coefficient of between 0.71 and 0.86 the results showed that the Psychometric instruments were valid and reliable for Nigerian study populations. The study recommends that more studies of this nature should be undertaken by Work-Family Conflict Researchers.

Keywords: Job Demands Sub-Scale, Time Management Behaviour Scale, Social Support Scale, Psychological Empowerment Scale, Psychometric Instruments.

Introduction

Work and family are about the two major areas in which adults are engaged simultaneously. In the course of this engagement, conflict occurs as a result of the critical variables of time and energy that are needed to be expended on each domain. Almost always, they are not enough to be spent on the two domains and consequently, stress occurs.

The regularity of the conflict between work and family has been in existence since antiquity. For example, Kahn, Wolf, Quinn. Snoek and Rosenthal as early as 1964 found that one third of their male employees were concerned with the extent to which their jobs interfered with their family lives. On the one hand, theories that have been advanced to enhance our understanding of the work and family constructs were reviewed. At the other extreme, some empirical studies that have been conducted in this realm of enquiry were also reviewed. They have argued that conflict arises as a result of the different roles that an individual may assume simultaneously thus making it difficult for the individual to fulfill the responsibilities within one domain as a result of demands in another.

Greenhaus and Beautell (1985) expanded the concept of inter-role conflict and in doing so, applied it to work-family domains. Greenhaus and Beautell (1985) defined inter-role conflict as a form of role conflict in which participation in different roles leads to opposing pressures., and role pressures from the work and family domains which are mutually incompatible in some respect." Consequently, this seminal study provided the theoretical underpinning for the concept of work-family conflict.

Statement of the Problem

The majority of the Psychometric instruments used in conducting research in Africa vis-a-vis, Nigeria are alien and foreign to these researchers. In order to have to be validated to suit local use, this is the gap, vacuum and loophole that this study seeks to fill.

Objective of the Study

This study review some Psychometric Instruments and adapt some Psychometric Instruments for Local (Nigerian) use.

By reviewing some of the Psychometric Instruments commonly used in the Work-Family Conflict Literature, Researcher will find it easier to conduct their studies since this study incorporates into one volume most of the instruments used by them.

Studies that examine the validity and reliability of Psychometric Instruments have been largely un-explored and un-charted in the Literature. This particular study becomes very handy in this regard.

Moreover, studies that engage in the adaptation of Psychometric Instruments among staff of Nigerian universities have not been systematically conducted whether in the U.S. Canada or any other Western Country including Africa with particular reference to Nigeria. This study will awaken interest among Work-Family Conflict Researchers in this direction.

From a theoretical and conceptual perspective, the term scope means the area or field of activity and the range covered by an activity, subject or research topic. Thus, the scope or area of study of this research is the staff of the University of Benin, Benin City, South-South, Nigeria.

Methodology

The participants for this study were 375 staff of the University of Benin, Benin City, South-South Nigeria whose ages were between 25 years and 60 years with a mean age of 42.5 years. They were drawn from the entire staff of 6,250 of the University of Benin, Benin City, South-South Nigeria, and was obtained by using the Yamane (1967) statistical distribution formula for computing sample sizes from finite populations. Out of these 375 employees, 91 of them (representing 24%) were academic staff. (See Table 1 below). 142 were Senior Non- Academic Staff (representing 38%). (See Table 1 below). Finally, 142 were Junior Non-Academic Staff (representing 38%). (See Table 1 below).

Validity and reliability analyses of these Psychometric instruments for use among the Nigerian populations were determined by administering the questionnaires on a sample of 100 participants randomly selected from 375 staff of the University of Benin, Benin City South-South Nigeria and whose results were not included in the main study. Validity and reliability analyses were evaluated with the Cronbach alpha coefficient by utilising the IBM statistical package for the social scientists (IBM SPSS)

version 22 for windows with an alpha correlation coefficient of between 0.71 and 0.86 the results showed that the Psychometric instruments were valid and reliable for Nigerian study populations.

Table 1: Distribution of the Study Population

Designation	Population	Sample size	Percentage
Academic Staff	1,524	91	24%
Senior Non-Academic Staff	2,498	142	38%
Junior Non-Academic Staff	2,498	142	38%
Total	**6,520**	**375**	**100%**

Source: Researcher's Field Study, 2019.

Study Population

The study population refers to the sum total or aggregation of all the relevant elements in which data and information are sought and the identifiable set of elements of interest to the researcher (Nnedum, 2013). In Edo State, the University of Benin is located in Benin City, Nigeria which is the Administrative Headquarters of Edo State of Nigeria. According to the National Population Commission of Nigeria (NPCN), (2006 Census), the population of Edo State is 4,564,290, whilst the population of Benin, Benin City, Nigeria is about 1,352,417. The sample populations of the main study and the pilot study were derived from the population of the inhabitants of Benin City, Edo State, South-South Geo-Political Zone of Nigeria. However, accessible population is the population that can possibly be reached. The accessible population of the staff of the University of Benin, Benin City, Nigeria is 6,250. According to the Staff Nominal Roll of the University of Benin, Benin City, Nigeria as at June 2014, the academic staff was 1,524 whilst the non-academic staff was 4.726. Consequently, the sample population for this study was derived from the eligible accessible population which consisted of the entire academic and the non-academic staff of the University of Benin, Benin City, Nigeria.

From the list of states in the South-South Geo-Political Zone of Nigeria, a state was selected for the present study. The names of the states were each written on a separate piece of paper, folded and put inside a bowl thus: Edo State, Delta State, Rivers State, Cross River State, Bayelsa State and Akwa Ibom State. One out of the six states was

selected by means of the systematic simple random method without replacement consecutively and formed the target state for the study. In doing so, Edo State was systematically and randomly selected for the study. Using the same procedure, names of the universities namely, University of Benin, Benin City, Ambrose Alii University Ekpoma, Benson Idahosa University, Benin City; Igbinedion University, Okada; Samuel Adegboyega University, Ogwa and Wellspring University, Benin City, were written on pieces of papers and dropped in a bowl, and the simple random sampling technique was adopted for selecting one university which was used for both the pilot and main studies. In doing so, the University of Benin, Benin City was systematically and randomly selected as the target organisation and or university for both the pilot and main studies.

However, it should be stated that a finite population is the population whose size or number is already known. The statistical distribution formula for the determination of the sample size from i finite population was developed by Yamane (1967). Since the population of this study is finite, an appropriate size determination formula for finite population characteristics was used. The formula is stated below:

$$n \qquad N$$
$$1+N(e)^2$$

Where:

n=the target sample size

N= the finite population

e= the level of significance (0.05)

1= Unity (a constant).

As it was stated in the preceding section, the target sample population of the staff of the University of Benin, Benin City, Nigeria is 6,250. Consequently, the researcher sampled 375 staff out of the entire study population of 6,250 staff for the pilot and main studies based on the above Yamane (1967) formula as computed below:

$$\frac{6,250}{1+6,250(0.0025)}$$
$$= 16.625.$$
$$=\frac{6.250}{16.625}$$
$$=375.939.$$

The 375 staff were sampled, and it was thought to be adequate to represent the entire population based on the statistical distribution formula for the determination of the sample size from a finite population of study developed by Yamane (1967).

Results

Psychometric Instruments

(i) Jobs Demands Sub-Scale

The Job Demands Sub-Scale was adapted from the original Job Demands Resources Scale developed by Jackson and Rothmann (2005). The Job Demands Resources Scale consists of 48 items about pace and amount of work, mental load, emotional load, variety in work, opportunities to learn, independence in work, relationship with colleagues, relationship with immediate supervisor, ambiguities about work, information, communications, participation, contact responsibilities, uncertainty about the future, remuneration, and career possibilities. The items of the scale are rated on a four-point Likert format ranging from 1 =(Never) to 4=-(Always). Jackson and Rothmann (2005) found that the dimension of the Job Demands Resources Scale consisted of seven reliable factors namely, organisational support (alpha=0.88), growth opportunities (alpha=0.80,) overload (alpha=0.75), job insecurity (alpha=0.90), relationship with colleagues (alpha=0.76), control (alpha=0.90), and rewards (alpha=0.78). With an alpha coefficient of between 0.75 and 0.90 obtained, Jackson and Rothmann (2005) maintained that the scale showed acceptable internal consistency reliability. However, for the present study, the job demands resources scale was adapted by using the job demands sub-scale which is a-25-item sub-scale because the interest of the present study was job demands.

The validity and reliability (the psychometric properties) of the sub-scale were carried out by sampling 100 participants (via a pilot study) randomly selected from the study population that were not part of the study sample. Validity and reliability analyses were evaluated with the Cronbach Alpha Coefficient using the IBM Statistical Package for the Social Sciences (IBM SPSS) Version 22 for Windows. A Cronbach Alpha Coefficient of 0.81 was obtained thus indicating that the Job Demands Sub-Scale is a valid and reliable scale for studying job demands among participants of Nigerian origin.(See Table 2 below).

(ii) Time Management Behaviour Scale

Time Management Behaviour Scale developed by Macan, Shahani, Dipboye and Philips, 1990) was used in measuring Time Management Behaviour of the participants of the present study. The scale has three sub-scales: planning, mechanics (e.g., making-to-do-lists) and planning for organisation (e.g., having preference for an orderly way of working). The scale as it was originally designed by Macan et al., (1990), is a five-point Likert rating scale. It has 29 items and was administered on 353 respondents and yielded a reliability coefficient of 0.72. For the current study however, the scale was adapted from the original five-point rating scale to a four-point Likert rating scale ranging from "Seldomly True" to "Frequently True." The validity and reliability indices of this scale for use among Nigerian samples and by implication, for the current study were determined by administering the questionnaire on a sample of 100 participants randomly selected from the study population and whose results were not included in the mam study. Validity and reliability analyses were evaluated with the Cronbach alpha coefficient utilising the IBM Statistical Package for the Social Sciences (IBM SPSS) Version 22 for Windows. With an alpha correlation coefficient of 0.85, the result showed that the Time Management Behavioural Scale is valid and reliable for use for this study and for Nigerian study populations (see table 2 below).

(iii) Work-Family Conflict Scale

In the literature on industrial and organisational psychology, one of the most widely studied topics is work-family conflict, and measuring instruments or scales are frequently utilised. There are countless numbers of scales and the choice of any scale for any study by researchers is purely

by choice and probably discretionary. In the present study and amongst the numerous numbers of these available scales, the researcher utilised the work-family conflict scale by Netemeyer, Boles and McMurrian (1996). The use of this strand of work-family conflict scale by this researcher was purely by choice and convenience.

The Work-Family Conflict Scale developed by Netemeyer et al., (1996) consists of two sub-scales: Work-Family Conflict and Family-Work Conflict. The work-family conflict scale is a-10-item self-report scale with five statements for each sub-scale intended to measure the level of work-family conflict experience of employees. Each sub-scale consists of five items with a seven-point Likert rating scale where 1=Strongly Disagree, 2=Disagree, 3=Slightly Disagree, 4=Neutral, 5=Slightly Agree, 6=Agree, 7=Strongly Agree. Netemeyer et al., (1996) described high internal consistency of the five items sub-scales for both WFC and FWC as Cronbach alpha range of 0.82 and 0.90 respectively. The scale measures the respondent's degree of agreement with each statement; and all items of the scale are directly scored.

For the purpose of the present study, the scale was adapted. In this connection, a-four-point rating scale was utilised instead of the seven-point rating scale originally developed by Netemeyer et al., (1996). The validity and reliability indices of this scale for use among Nigerian study participants were determined by administering the questionnaire on a sample of 100 participants randomly selected from the study population. Validity and reliability indices among Nigerian participants were evaluated with the Cronbach alpha correlation coefficient by utilising the IBM Statistical Package for the Social Sciences (IBM SPSS) Version 22 for Windows. A Cronbach alpha coefficient of 0.82 was obtained implying that the scale is both valid and reliable among Nigerian study participants and therefore, is adequate for use for this study (See table 2 below). The Work-Family Conflict Scale has a good internal consistency with a Cronbach alpha coefficient of 0.82.

(iv) Social Support Scale

The Social Support scale was originally developed by Cohen and Hoberman (1983). However, Cohen, Mermelstein, Kamarck and Hoberman (1985) having been interested in the role Social Supports play in protecting people from the pathogenic effects of stress, developed

their own version of the scale within the context of the limitations of earlier work.

According to Cohen et al., (1985), Social Supports mean the resources that are provided by other persons. Cohen et al., (1985) posit that although many researchers have investigated and in some cases, found evidence for a "buffering" hypothesis-that Social Support protects persons from the pathogenic effects of stress, but nevertheless, it is relatively unimportant to people who are not exposed to stress. Moreover, Cohen et al., (1985) purport that there are difficulties in interpreting this literature for a variety of reasons. First, there are almost as many measures of Social Support as there are studies. Hence, according to these researchers i.e., Cohen et al, (1985), it is difficult to do a comparison of studies and to determine why support works as stress buffer in some cases, but not in others. Second, in the vast majority of works, support measures are used without regard to their psychometric properties or their appropriateness for the questions under study. For example, studies using measures for assessing the structure of social networks (e.g., how many friends do you have'?) are seldom distinguished from those addressing the functions that networks might serve (e.g., do you have someone you can talk to about personal problems?).

Cohen et al., (1985), in pushing forward this line of argument, reasoned that structural and functional items are thrown up together into single Social Support indices resulting in scores that have little conceptual meaning. Within the context of the limitations of earlier work, Cohen et al., (1985) developed their own version of the Social Support instrument to study the support buffering process. The scale is a 40-item scale made up of four subscales as follows: (1) Tangible Support Sub-Scale which comprises of 10 items (2) Belonging Support Sub-Scale with 10 items (3) Self-Esteem Support Sub-Scale with 10 items (4) Appraisal Support Sub-Scale comprising of 10 items. Participants rate each items statement on how true or false they believe it is for themselves. All answers are given on a 4-point scale ranging from "Definitely True"=4 to "Definitely False."=1. The validity and reliability coefficients of the scale among Nigerian study participants for the present study were evaluated via a pilot study by sampling 100 participants randomly selected from the study population that were not part of the main study. Cronbach alpha correlation coefficient was measured by using the IBM Statistical Package

for the Social Sciences (IBM SPSS) Version 22 for Windows. An Alpha Coefficient of 0.71 was obtained. Thus, the instrument was deemed to be both valid and reliable for this study and by extension, the Nigerian study populations and or participants. (see table 2 below).

(v) Psychological Empowerment Scale

The psychological empowerment scale was developed by Spreitzer (1995) and it is used for measuring a psychological construct called psychological empowerment. It is a self-report questionnaire, and designed to measure the four dimensions of psychological empowerment. The four dimensions of the scale are: meaning, competence, autonomy (self-determination) and impact. It has 12-items with 3-items for each dimension of the scale, and is measured on a seven-point Likert-like scale ranging from "Very Strongly Disagree" (0) to Very Strongly Agree"= (6). Spreitzer (1995) measured the reliability of the scale by using a sample of 393 middle level employees drawn from an industrial organisation and an insurance company. Cronbach alpha coefficient obtained was 0.72. However, for the current study, the scale was adapted. Thus, a four-point Likert like rating scale was used ranging from "Strongly Disagree =(l) to Strongly Agree"=(4) instead of the seven-point rating scale as was originally conceived of and designed by Spreitzer (1995). The validity and reliability indices of the scale for Nigerian populations were measured in a pilot study by utilising 100 participants randomly selected from the study population and whose data were not part of the main study sample. Cronbach alpha coefficient was evaluated by using the IBM Statistical Package for the Social Sciences (IBM SPSS) Version 22 for Windows. An alpha coefficient of 0.82 was obtained. Thus, the instrument was adjudged to be valid and reliable for the current study and indeed, for Nigerian study participants (See Table 2 below). The Psychological Empowerment Scale has a good internal consistency.

Table 2: Table of Reliability Statistics of the Study Variables

Variable	No of Items	Cronbach Alpha
Job Demands	25	0.81
Time Management	29	0.85
Work-Family Conflict	10	0.82
Social Support	40	0.71
Psychological Empowerment	12	0.82

Source: Pilot Study, 2019.

Conclusion

The purpose of this paper was (i) to review some psychometric instruments commonly used in the conduct of research in the interplay between the work and family domains and (ii) to validate and adapt these instruments for use among the Nigerian study populations. The rationale behind this endeavour is to provide "readymade" instruments in psychology especially in Industrial and Organisational Psychology with an especial reference to the work and family conflict research studies more readily available for research. The instruments specifically reviewed, validated and adapted for use among the Nigerian study populations were the Job Demands Sub-Scale, Time Management Behaviour Scale, the Work-Family Conflict Scale, the Social Support Scale and the Psychological Empowerment Scale.

Recommendation

Researchers in the area of industrial and organisational psychology should be encouraged to focus on a very extensive review of Psychometric Instruments in order to understand them better. The reason is that a great majority of them is alien to Africans and / or Nigerians.

Those Psychometric Instruments that are available locally should be adapted by evaluating their validity and reliability indices. This will ensure that these measuring instruments are readily available to researchers of Work-Family Conflict.

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Class Size Indices as Predictors of Teachers' Job Performance in Private and Public Secondary Schools in Ibadan Metropolis, Oyo State, Nigeria

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Abstract

Class size indices as predictors of teachers' job performance in private and public secondary schools in Ibadan Metropolis, Oyo State of Nigeria, were investigated in this study. Descriptive survey research design was used and it was questionnaire based. The population of the study comprised public and private secondary school teachers in Ibadan Metropolis, Oyo State of Nigeria. Multi-stage, cluster, purposive and simple random sampling techniques were used to select 1,320 teachers (male and female) from the selected public and private secondary schools for the study. Two research questions were raised while two hypotheses were formulated. The data collected for the study were analyzed using descriptive analysis, simple regression analysis and t-test. All the hypotheses were tested at 5 % level of significance. Among others, the study revealed that class size has significant combined influence on teachers' job performance in both public and private secondary schools in Ibadan Metropolis of Oyo State, Nigeria. As a result of the findings, it was recommended that more classroom blocks should be constructed in many public schools and some private schools to ensure moderate class size in Ibadan Metropolis.

Keywords: Class size and teachers' job performance, private and public secondary schools, Ibadan Metropolis, Oyo State, Nigeria.

Introduction

Performance of teachers in secondary schools in Nigeria has been a great concern to educational stakeholders. The researcher observed that some years back, stakeholders believe teachers' performance is nothing to write home about and felt that their performance of is below projection especially when their productivity is evaluated vis-a-vis the quality of students they produce to the society. As a result of this, stakeholders seem to have lost dependence in teachers especially in public secondary schools. This made many of these stakeholders to take their wards to private schools thereby paying through their noses to get the kind of standard they want for their wards. This seemingly poor performance of secondary school teachers is a serious risk to teaching and learning activities and the society at large and requires prompt consideration and solution. It is evident that the recommendation of UNESCO as per the approved student-teacher ratio of (25:1) has not been complied with in Nigeria especially in public schools, causing: overcrowding in classrooms, leading to teaching-learning activities to take place under trees while some schools make use of dilapidated buildings as classrooms.

Class size refers to the actual number of students/pupils in any natural classroom; it is the number of students/pupils for whom a teacher is primarily assigned during a school year *(*Asodike & Onyeike, 2016*)*. It is the number of students to a particular teacher at a particular time. The ideal number of class size as recommended by UNESCO is 25 students in a class while National Policy on Education (2013 as cited by Ajayi, Audu & Ajayi, 2017) recommended that class size should be 40:1 in secondary schools. When class size is moderate, class management seems to be more effective than when it is overcrowded. In contrast, when class size is higher than recommended, teachers tend to be dissatisfied with their jobs. Where teachers are dissatisfied with their jobs, their performance tends to be negatively infringed upon. From the researcher's observation of some schools in Ibadan Metropolis, class size is on the increase far beyond NPE's and UNESCO's recommendations in Nigeria, as many secondary schools are extremely overcrowded causing teaching-learning effectiveness to be at risk. Fabunmi, Brai-Abu and Adeyinka (2018) reported that average class size in most secondary schools exceeds 50 in Oyo State. Osim (2011 in Yusuf, Onifade & Bello, 2016) also reported

that schools in Nigeria have as many as 80, 100 or above 100 students per class.

Many factors have been identified as the causes of high class size among which are: increase in school enrolment without a corresponding increase in classrooms or accommodation, inadequate personnel, inadequate qualified teachers, and inadequate funding of schools. To buttress this, (Okeke & Emunemu, 2016) explained that continuous upward trend in school enrolment, prompted by the growing demand for education by most citizens of school age has caused school population to increase tremendously and this has affected the population of individual classrooms. From the point of view of Okeke and Emunemu, increase in school enrolment without increase in school building can lead to large class size and this can impart negatively on teachers' job performance.

Job performance is the process whereby an employee discharges the duty and schedule associated with his job specification. Dike and Eric (2019) defined job performance as the skill, knowledge and competence with which a person executes the duties and responsibilities associated with job description. So, the way and manner individual teachers discharge their duties will depend on how well their needs are met in terms of availability of factors needed for them to perform and this will impact greatly on the success or failure of the education sector. It is important to note that for education sector to succeed, stakeholders must ensure that appropriate factors that will motivate teachers to put in their total best are put in place. This is in line with the view of Sonnentag, Volmer and Spychala (2010 in Garba & Muhammad, 2017) that individual's job performance is of high relevance to the existence and well-being of organisations. One of the important, if not the most important, of the responsibilities undertaken by managers of organisations is to ensure that members of their entities achieve high levels of performance (Armstrong, 2016 in Garba & Muhammad, 2017). Measures or indices put in place for employees to perform will determine to a great extent how well or poor the employee will carry out their duties and will also determine the output or productivity of such organisation. Additionally, school enrolment, availability of school buildings, availability of personnel, availability of qualified teachers and some other factors will determine class size, teachers' performance, productivity and the extent of educational goals and objectives' achievement.

Since better performances are expected from teachers, it should be the priority of stakeholders to ensure reasonable class size in accordance with UNESCO's recommendation; as their performance in school activities is dependent on how well they are provided with necessary factors needed. It is when teachers' needs are met that they will perform their duties towards enhancing quality assurance in children' education, it is when teachers' needs are met that they will be happy to discharge their duties well, serving as precursor to achieving educational objectives.

Statement of the Problem

A classroom is a place where students are imparted with skills, values, knowledge, attitudes and norms necessary for them to become future leaders. Consequently, an ideal classroom should be secured, conducive, comfortable and welcoming for both students and teachers such that it will promote teaching-learning effectiveness for the achievement of educational goals and objectives. A welcoming classroom that is well arranged with reasonable number of students can contribute favorably to teachers' job performance, while overcrowded and poorly arranged classrooms can make teachers to be distracted and easily lose control of class management. From the researcher's observation of schools in Ibadan Metropolis, classrooms in many public and some private secondary schools are overcrowded, a situation that results in students being taught under trees and even in dilapidated buildings. Where the classroom is overcrowded, teachers' performance could be seriously eroded, thus, class size constitutes an important area for investigation in this study. Though, literature abounds on researches which examined class size and teachers' performance, (Okeke & Emunemu, 2016; Dike & Eric, 2019) little studies have been concentrated on both public and private schools at the same time. To this end, this study investigated class size indices as predictors of teachers' job performance in private and public secondary schools in Ibadan Metropolis, Oyo State, Nigeria. Ibadan Metropolis in this study comprises all the 11 local government areas in Ibadan land.

Research Questions

1. What is the class size situation in all the secondary schools in Ibadan Metropolis?
2. What is the level of teachers' job performance in public and private and secondary schools in Ibadan Metropolis?

Hypotheses

H_{01}: There will be no significant relationship between class size and teachers' job performance in secondary schools in Ibadan metropolis.

H_{02}: There will be no significant gender difference in teachers' job performance in secondary schools in Ibadan metropolis.

Methodology

A descriptive survey research design was adopted for the study. The population of this study comprised all the public (335) and private (478) secondary schools of Ibadan Metropolis (comprising 11 local government areas) in Oyo State, Nigeria.

Multi-stage, cluster, purposive and simple random sampling techniques were used for selecting the samples (respondents). By the time this study was conducted, there were 813 public and private secondary schools (335 and 478 respectively) in the 11 local government areas in Ibadan Metropolis, Oyo State of Nigeria. These schools were clustered into main and less cities. At the first stage, six public and six private schools were randomly selected from each local government area in both main and less cities, respectively making total of 132 (16%) schools. At the second stage, from the 132 schools selected, 10 teachers were purposively and randomly selected from each school making a total sample of 1320 teachers.

The research instrument used in this study is divided into 3 sections: A, B and C. Section A had to do with respondents' bio-data. Section B had items that interrogated the research questions. Section C had items that measured the postulated hypotheses on all the variables used. Items were structured using four Likert rating scale (Very Often = 4, Often = 3, sometimes = 2 and Rarely = 1.

A pilot study was carried out to validate the instrument and the reliability of the instrument was tested using the test-retest method to

establish the stability principle and the coefficient at 0.763. The data collected were subjected to statistical test and analysis using descriptive statistics (percentage, mean and standard deviation for respondents bio-data and research questions) while simple regression analysis was used to answer hypothesis one and t-test for hypothesis two at 5% level of significance.

Results

Research Question One: What is the class size situation in all the secondary schools in Ibadan Metropolis?

Table 1a: Average Class Size of Students in Class

Number of Students	Frequency	Percentage
5 – 15	151	12.7%
16 – 25	434	36.5%
26 – 35	291	24.5%
Above 36	215	18.1%
No Indication	99	8.3%
Total	**1190**	**100%**
Mean = 2.56		

Source: Fieldwork, 2019

Table 1b: Reaction of Teachers when Class is above 35

Option	Frequency	Percentage
Satisfied	407	34.2%
Dissatisfied	715	60.1%
No Indication	68	5.7%
Total	**1190**	**100%**
Mean = 1.68		

Source: Fieldwork, 2019

Table 1c: View of Teachers on the Ideal Class Size for Effective Teaching-Learning Activities

Teachers' Perception	Frequency	Percentage
Less than 10	39	3.3%
11 – 15	16	1.3%
16 – 20	137	11.5%
21 – 25	94	7.9%
26 – 30	313	26.3%
31 – 35	207	17.4%
36 – 40	209	17.6%
Above 40	48	4.0%
No Indication	127	10.7%
Total	**1190**	**100%**
Mean = 2.56		

Source: Fieldwork, 2019

Answer to research question 1 on class size situation in secondary schools in Ibadan Metropolis is presented in Tables 1a, 1b and 1c. To answer the research question, the actual class size of students in class was investigated and result is presented in Table 1a. It was revealed that 12.7% of the respondents stated they had between 5 and 15 students in their classes, 36.5% of the respondents indicated they had between 16 and 25 students in their classes, 24.5% stated they had between 26 and 35 students in their classes. Furthermore, the table reveals that 18.1% of the respondents stated they had above 36 students in their classes, while 8.3% of the respondents did not attempt the item.

From Table 1b, 34.2% of the respondents stated they were satisfied when class size was above 35 while 60.1% of the respondents stated they were not satisfied. The implication of this is that many of the respondents were not comfortable teaching a large class that is above 35.

Also, Table 1c obtained information from the teachers about their consideration of ideal class size for effective teaching-learning activities. From the result obtained, 1.3 of the respondents indicated that the ideal class size for effective teaching-learning activities is between 11 and 15; 3.3% said 10 students and below, 7.9% indicated between 21 and 25 while 11.5% indicated 16 and 20 students. The Table further reveals that 4.0% indicated above 40 students as ideal class size for effective teaching-learning activities. 17.4% indicated between 31 and 35 as ideal class size

for effective teaching-learning activities, 17.6% indicated between 36 and 40 students, while 26.3% of the respondents considered between 26 and 30 students as ideal class size for effective teaching-learning activities. However, 10.7% of the respondents did not indicate their perception of ideal class size for effective teaching-learning activities.

Research Question Two: What is the level of teachers' job performance in public and private and secondary schools in Ibadan Metropolis?

Table 2: Level of Teachers' Job Performance in Public and Private Secondary Schools in Ibadan Metropolis

Item	Very Often	Often	Some-time	Rarely	No Res.	Mean	Std. D
My performance is still effective even when my classroom is poorly arranged	301 25.1%	281 23.6%	466 39.2%	123 10.3%	19 1.6%	2.65	0.976
Adequate provision of classroom facilities enhances my performance	661 5.5%	287 24.1%	211 17.7%	12 1.0%	19 1.6%	3.36	1.809
My performance is low when my classroom is stuffy due to overcrowding	361 30.3%	309 26.0%	364 30.6%	109 9.2%	47 3.9%	2.81	1.990
I am always happy that I am a teacher and this boosts my performance	451 37.9%	356 29.9%	297 25.0%	64 5.4%	22 1.8%	3.02	0.927
Dealing with too many students is very stressful and brings about poor performance	418 35.1%	342 28.7%	274 23.0%	132 11.1%	24 2.0%	2.90	1.018
Working in dilapidated buildings can affect my performance negatively	400 33.6%	350 29.4%	272 22.9%	139 11.7%	29 2.4%	2.87	1.021
My students are often taught under trees and this hinders my performance	104 8.7%	121 10.2%	253 21.3%	682 57.3%	30 2.5%	1.70	1.016
My performance is very low when I teach more than 40 students in a class	395 33.2%	128 10.8%	405 34.0%	229 19.2%	33 2.8%	2.60	1.160
Weighted Mean = 2.73							

Source: Fieldwork, 2019

Note: Mean ranges form *0 – 1.49 = Very Low*
1.50 – 2.49 = Low
2.50 – 3.49 = High
3.50 – 4.0 = Very High

The result in Table 2 shows that the respondents agreed with the following: My performance is still effective even when my classroom is poorly arranged (mean = 2.65); Adequate provision of classroom facilities enhances my performance (mean = 3.36); My performance is low when my classroom is stuffy due to overcrowding (mean = 2.81); I am always happy that I am a teacher and this boosts my performance (mean = 3.02); Dealing with too many students is very stressful and brings about poor performance (mean = 2.90); Working in dilapidated buildings can affect my performance negatively (mean = 2.87); My performance is very low when I teach more than 40 students in a class (mean = 2.60). The table also revealed that the respondents disagreed with the statement: My students are often taught under trees and this hinders my performance (mean = 1.70). The weighted mean was 2.73, an implication that the job performance of teachers in public and private secondary schools in Ibadan Metropolis was high.

$H_{01:}$ There is no significant relationship between class size and teachers' job performance in private and public secondary schools in Ibadan metropolis.

Table 3: Relationship between Class Size and Teachers' Job Performance in Private and Public Secondary Schools in Ibadan Metropolis.

Variable	N	Mean	Std. Dev.	R	P value	Remarks
Class Size	1190	23.1139	5.54489	0.336	0.012	Significant
Teachers' Job Performance	1190	21.8584	3.37339			

Table 3 presents result of hypothesis formulated on relationship between class size and teachers' job performance. The result shows a significant relationship between class size and teachers' job performance ($r = 0.336$; $P < 0.05$), the hypothesis is therefore rejected at 0.05 level of significance. This implies that class size has significant relationship with secondary school teachers' job performance in Ibadan Metropolis. Mean value of class size was given as 23.1139 and teachers' job performance was given as 21.8584 while standard deviation values of the two variables were 5.54489 and 3.37339 respectively.

$H_{02:}$ There will be no significant gender difference in teachers' job performance in private and public secondary schools in secondary schools in Ibadan Metropolis.

Table 4: Summary of T-Test Table Showing Gender Difference in Teachers' Job Performance in Secondary Schools in Ibadan Metropolis.

Variable	N	Mean	SD	T	Df	Sig	Rmk
Teachers' Gender:							
Male	481	22.160	3.35058				
Female	620	21.640	3.37883	2.541	1099	0.291	Not Sig.
Teachers' Job Performance	101	21.858	3.37339				

Source: Fieldwork, 2019

Not significant at 0.05 level of significance

The result of hypothesis 2 on gender difference on teachers' job performance is presented in table 4. The table reveals that there is no significant difference in the job performance of male and female teachers in public and private secondary schools in Ibadan metropolis ($t = 2.541$; $df = 1099$; $p > 0.05$), then, the hypothesis is accepted at 0.05 level of significance. This implies that there is no significant difference in the job performance of male and female teachers. The mean values for male and female teachers in the table are given as 22.160 and 21.640 respectively while the standard deviation values of male and female teachers are 3.35058 and 3.37883 respectively.

Discussion of Findings

The first research question aimed at finding out the situation of class size in all the private and public secondary schools in secondary schools in Ibadan Metropolis. Findings from Tables 1a, 1b and 1c revealed high class size with weighted mean of 2.56: many of the teachers were not comfortable teaching large class that was above 35 and their consideration of ideal class size ranged between 26 – 30. The result of this study agrees with the findings of Fabunmi, Brai-Abu & Adeyinka (2018) that average class size in most secondary school exceeds 50 in Oyo State. The result also corroborates the findings of Osim (2011 in Yusuf, Onifade & Bello 2016) that Nigerian schools have as many as 80, 100 or above 100

students per class. From the findings of this study, the ideal class size of teacher per students should ranges between 25 – 30.

Hypothesis two shows that there was no significant difference in the job performance of male and female teachers in public and private secondary schools in Ibadan Metropolis. The result of the hypothesis as presented in Table 4 reveals ($t = 2.541$; $df = 1099$; $p > 0.05$), thus, the hypothesis is accepted at 0.05 level of significance meaning that there was no significant difference in the gender of teachers in their job performance in secondary schools in Ibadan Metropolis. The finding of this study supported the findings of Anumaka and Semugenyi (2013) that productivity did not differ significantly among male and female academic staff.

Conclusion

This study concluded that class size significantly predicts teacher job performance in public secondary schools in Ibadan metropolis, Oyo State, Nigeria. Therefore, this study advocated that for better performance of teachers, stakeholders (school administrators, Ministry of Education, to mention few) should ensure reasonable class size that a teacher can manage which should also be in line with the UNESCO recommendation on class size that is, 30-35 secondary students per teacher.

Recommendations

The following recommendations are made based on the findings of the study.

1) More classroom blocks should be constructed in many public schools and some private schools to ensure moderate class size.
2) Government should ear-mark substantial amount of money, of the national budget to education.
3) There should be prompt and timely maintenance of school buildings and furniture in all secondary schools.
4) Government at all levels and private school proprietors should endeavor to make teachers comfortable in their job by making class size moderate. An average class size of 1:25 and 1:35 is considered appropriate in private and public secondary schools respectively.
5) Recruitment of teachers should be increased to match up with demand of student population. This will reduce class size to the barest minimum.

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