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TEACHER MOTIVATION AND JOB SATISFACTION: A CASE STUDY OF NORTH WEST NIGERIA

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ABSTRACT

The rate of educational development in Nigeria is constrained by social, economic, and political factors. This affects the adult literacy rate in the country, which is about 60% and lower for adults in rural areas. Teachers play pivotal roles in improving student enrolment, retention, and completion. Teachers' motivation levels may determine how they effectively play such roles. This study addresses the relationship between teacher motivation and high productive performance by teachers. The study uses the context of Northern Nigeria whose struggles with literacy and education generally are more pronounced than the rest of the country. The study uses Baseline Survey data from the 2014 Teacher Development Program In-Service Training Component Impact Evaluation conducted in North West Nigeria. A binary multiple logistic regression model is used to evaluate the relationship between job satisfaction, some sociodemographic factors, and some perceptions relating to teaching. It is hoped that the findings will be beneficial to an international audience especially for comparative benefits in motivation and job satisfaction. In addition, the findings will be beneficial to educators in Nigeria in addressing the issue of teachers' motivation, performance and job satisfaction.

KEYWORDS: Adult Education, Teacher Perception, Adult Literacy, Northern Nigeria, Logistic Regression

INTRODUCTION

According to United Nations Educational, Scientific and Cultural Organization and International Institute for Capacity Building in Africa (UNESCO-IICBA, 2017), achieving Universal Primary Education is negatively affected by the gap in the availability of teachers in Africa. This gap is wider in sub Saharan African (SSA) where there is a need for a 67% increase in the number of teachers by 2030. Universal primary education is vital to the adult population in SSA countries such as Nigeria to reduce poverty through increased adult literacy.

In recent times, the rate of adult literacy in Nigeria has been increasing gradually, partly from some of the mass literacy programs developed by the government and private organizations. These literacy programs are part of the adult education system in the country designed to target beginners, adults who did not complete basic education, and adolescents who did not attend schooling at earlier age (Ogundele, 2014). However, the adult literacy rate is still quite poor even when compared to some SSA countries such as Ghana and South Africa. The literacy rate for the 15+ age group in Nigeria is

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about 59.6%, while in Ghana and South Africa the rates for that same age group are 76.6% and 94.6%, respectively (Knoema, 2018). Perhaps, adult education programs in Nigeria are not yielding as positive of results because they are not well tailored to meet the socio-economic developmental needs of its citizens(Obasi, 2014).

Additionally, social crises such as ethno-religious unrest, communal clashes, poverty, high rate of unemployment, and unequal distribution of resources among Nigerians are some of the factors influencing adult education in Nigeria (Ogundele, 2014). This study considers teachers' role in the current state of Nigeria's adult education as they play pivotal roles in fostering quality education, achieving learning goals, as well as improving student enrolment, retention, and completion (UNESCO-IICBA, 2017). More importantly, it may be helpful to understand how Nigerian teachers' job satisfaction and motivation levels may determine how they effectively play such roles. Thus, this study addresses the association between job satisfaction and factors relating to motivation, and the implications of high productive performance by teachers. Further, the study uses the context of Northern Nigeria whose struggles with literacy and education are more pronounced than the rest of the country(Jogwu, 2010).

Teacher Motivation and Job Satisfaction

Often timeshaving skilled teaching staff, training and development, professional knowledge, and financial resources are regarded as factors required for a successful educational organization. Nevertheless, people may not appreciate the importance of teachers' motivation and job satisfaction in ensuring the growth and development of the educational system(Ololube, 2006). Motivation here refers to how willing individuals are to work towards achieving the goals of their organization or employee (Li et al., 2014), and job satisfaction is the ability of one's job (i.e. teaching job) to meet the person's needs as well as improve their work performance (Ololube, 2006). Furthermore, work motivation is positively associated with job satisfaction (Jerotich & Box, 2015; Li et al., 2014; Ololube, 2006) and teachers who are highly motivated are likely to be successful at their job (Bozpolat, 2016).

Teachers who are motivated are likely to go the extra mile to improve student performance and ensure that the learning outcomes are achieved. Unfortunately, teachers in SSA countries, particularly those teaching in primary schools have been reported to have poor motivation and low job satisfaction (Wolf, Torrente, Mccoy, & Rasheed, 2015). As the rate of student enrolment continues to increase in the region, the increased workload, overcrowding of classrooms, and the perceived relegation of teaching as an unappealing profession by the society are potential issues that may lowerteachers' motivation and job satisfaction. Additionally, constraints to boosting teachers' motivation may be in form of poor remuneration, ineffective administrative supervision, low government support, lack of teaching incentives, absence of teaching materials, and poor teaching conditions (Jerotich & Box, 2015; UNESCO-IICBA, 2017). Sometimes having poorly performing and/or poorly behaved students are factors that also affect teacher motivation (UNESCO-IICBA, 2017). It can be argued that these are similar issues facing the educational system in Nigeria especially in rural northern Nigerian communities.

Education in the Context of Northern Nigeria

Nigeria is a very diverse country over 170 million people, more than 350 ethnic groups, and about 500 indigenous languages. Education is provided and maintained by the three tiers of government (Federal, State, and Local), and its educational system also receives support from other stakeholders such as International Development Partners, Civil Society Organizations, and Non-Governmental Organizations. The system is divided into: early child care and development (for ages 0-4 years), basic education which includes pre-primary, primary, and junior secondary education (for ages 5-15 years), post-basic education which includes 3 years in senior secondary school and technical colleges, and tertiary education. Part of Nigeria's philosophy of education is to provide equal opportunities for its citizens to achieve basic, secondary, and tertiary education (National Policy on Education, 2013).

Nevertheless,the country currently struggles to meet the United Nations millennium development goals 2 and 3 relatingto increasing primary education completion rate and eliminating gender disparity in education access. Comparative studies put Nigeria among the 10 countries with the lowest levels of primary school enrolment in the world (Antoninis, 2014). According to the British Council (2014), 28% of Nigerian men and 40% of its women have no education, the primary school net enrolment rate is below 65%, and more than 10.5 million children are out-of-school(Antoninis, 2014). These challenges are even greater in Northern Nigeria. For example, in North-West and North-East Nigeria two-thirds of the women in the region have no education (British Council, 2014). Primary education in Northern Nigeria is often through religious forms like Islamic/Arabic schools because people in rural, poor, hard-to-reach communities in the region are not able to access secular education (Antoninis, 2014). Nevertheless, the country has not taken full advantage of using these religious schools to improve the state of education in the region.

Effective teachers are important to addressing some of the challenges of education in Northern Nigeria as well as improving adult education but this can only partly be achieved through increasing teachers'motivation and job satisfaction (UNESCO-IICBA, 2017). This study is to investigate how different aspects of schooling,especially those relating to motivation, influence teacher satisfaction. It is hypothesized that factors that increase teacher motivation such as training, better wages, lower class size, lower workload, having high performing pupils, and organizational support will increase job satisfaction of teachers.

Design and Methods

Data

The data for this study is from a phase 1 (baseline) survey conducted as part of the 2014 Nigeria Teacher Development Programme In-Service Training Component Impact Evaluation (World Bank, 2018**).** The training is for teachers in Jigawa, Katsina, and Zamfara states in North West Nigeria. The units of analysis are teachers in primary one to three (grades one to three) who teach English, mathematics, or science and technology; and students who were in grades (primary) 1 to 3 at the time of the survey being taught either of the three core subjects mentioned by at least one of the selected teachers. A quasi-experimental 'constrained randomization' sampling approach was used and the constrained randomization allowed for having specified parameters like the local government area where the programs were operated. These schools were also randomly selected to be either part of the control or treatment group. The sample used includes teachers and head teachers; the number of respondents is 1238, 85.2% male, 14.8% female, 23% from Jigawa, 34.7% from Katsina, and 32.8% from Zamfara. The average age is 37.9 years.

Measures

Dependent Variable

Increased satisfaction. This outcome variable is a measure of teachers' satisfaction with teaching in the past two years and the participants had the option of choosing between strongly disagree, disagree, agree, strongly disagree, or refused to answer. The question is: "in the past two years, my job has become more satisfying". The first two categories were merged as "disagree" while the 3rd and 4th values were merged as "agree"; refused to answer was treated as missing in the analysis.

Independent Variables

The independent variables include predictors of interest and those controlled for in the model (covariates). The independent variables of interest are measures of factors that influence teacher motivation according to the survey used in the Teacher Development Programme In-Service Training Component Impact Evaluation. All variables except for age and monthly salary are categorical, indicator variables are coded in binary forms (0 or 1). None of the missing values were more than 10%.

Motivation. Some of the survey questions were designed specifically to measure aspects of teaching that relate to motivation and some of these variables are selected as the predictors of interest. The variables are: 1) tiresome, from the statement "teaching is very tiring"; 2) pupils, from the statement "there are too many pupils in my classroom"; 3) support, from the statement "I have all the support I need to teach my students well"; 4)skillful, from the statement "teachers at

my school have the knowledge and skills to do their job"; 5) too-many classes, from the statement "I teach too many classes", 6) poor building, "difficult to teach in this room as school building is in poor condition", 7) not-smart, from the statement "most pupils in this school are not intelligent enough to do well". The response values to these predictors of interest are similar to that of the dependent variable and were treated likewise. Also, because the frequencies of the values across some of the measures are quite small, it was necessary to merge the values for better comparison. Thus, the values were in binary forms (0 or 1) as earlier indicated.

Covariates. Variables for age and gender were included as covariates. Age is a continuous variable, while gender was either male or female. The state variable included had values 1, 2, and 3 (i.e., Jigawa,Katsina,and Zamfara). Another continuous variable included as a covariate is teachers' monthly salaries, values with don't know or refused to respond were treated as missing. The educational qualification variable used is to determine if participants have the National Certificate in Education (NCE)which is the minimum tertiary education required to become a primary school teacherin Nigeria(Osuji, 2009). NCE is still used as the minimum requirement for teachers in some junior secondary schools in Nigeria. The NCE variable values are either "yes" or "no". In addition, a variable to measure if participants engaged in any teacher related training is included with "yes" or "no" values. The don't knowvalues in NCE and training variables are treated as missing.

Participants

The number of participants in the study is 467. The mean age is 37.94 years (weighted – 37.96), the mean monthly salary is N39,816 or $110 (weighted –N39,517 or $109). The number of teachers who reported increased job satisfaction in the past two years is 81.37% (weighted – 81.57%) while those that disagree is 18.63% (weighted – 18.43%). Also, 71.95% (weighted – 71.10%) of the participants have the National Certificate in Education qualification while 28.05% (weighted – 28.9%) do not. Among the three states used in the study, participants from Jigawa state are 30.41% (weighted 31.30%), those from Katsina are 34.36% (weighted – 33.68%), and those from Zamfara are 35.33% (weighted – 35.02%). Although more of the participants reported increased job satisfaction, about 40% of them agreed that teaching is tiring. See Table 1 for more information.

Appendices

Table 1. Descriptive Statistics of Participants

Increased Satisfaction (n = 467)	Frequency	Percentage Unweighted	Weighted
Gender			
Male	395	84.58	85.38
Female	72	15.42	14.62
State			
Jigawa	142	30.41	31.30
Katsina	160	34.36	33.68
Zamfara	165	35.33	35.02
Received training			
No	209	44.75	45.38
Yes	258	55.25	54.62
NCE			
No	131	28.05	28.90
Yes	336	71.95	71.10
Poor building			
Disagree	316	67.67	67.87
Agree	151	32.33	32.13
Too-many classes			
Disagree	102	21.84	21.09
Agree	365	78.16	78.91
Too-many pupils			
Disagree	139	29.76	30.68
Agree	328	70.24	69.32
Skillful			
Disagree	23	4.93	5.79
Agree	444	95.07	94.21
Tiresome			
Disagree	187	40.04	40.09
Agree	280	59.96	59.91
Not smart			
Disagree	329	70.45	70.20
Agree	138	29.55	29.80
Support			
Disagree	146	31.26	31.85
Agree	321	68.74	68.15
Increased satisfaction			
Disagree	87	18.63	18.43
Agree	380	81.37	81.57

Conceptual Model

A conceptual model is used to show the expected relationships between the predictor variables and the outcome variable (increased satisfaction). Sociodemographic factors such as age, gender, and education are expected to influence satisfaction levels of participants. Salary levels and teacher training are also expected to be associated with job satisfaction. The predictor variables of interest which are measures of aspects of schooling that motivate or demotivate

teachers are expected to be associated with teaching job satisfaction.

Statistical Analysis

A binary multiple logistics regression model is used to test the hypothesis because the outcome variable (increased satisfaction)is a categorical variable (Allison, 2012). Data cleaning and analysis were done using SAS (v9.4). All categorical variables including those relating to motivation are coded as a binary (0 or 1 e.g., disagree or agree, yes or no) except for age and salary which are continuous variables. A sampling weight is applied to the model to ensure the results represent the cluster of schools studied. Univariate analyses are conducted for an overview of the study variables. According to Allison (2012) a linear regression model (OLS) using SAS can be used to check for potential multicollinearity issues and this step was taken in the diagnostics procedures. Overall, the model is evaluated by checking for goodness-of-fit, multicollinearity, predictive power of the model, and influence of outliers.

Results

Diagnostics

Table 2 shows the odds ratios, confidence intervals, and the significance levels for the regression model. The goodness-of-fit statistics shows the model is of good fit with $p < .0001$. The Variance Inflation Factor (VIF) of the predictors in the model were investigated for potential multicollinearity issues; using the guidelines by Meyers, Gamst, and Guarino (2005), a VIF value of 2.50 or above is associated with a tolerance of 0.40 or below and may be problematic to a model. Multicollinearity issues were not detected. The model has no influential outliers, and the c statistic (the area under the receiver operating characteristic curve) is 0.73 which implies that the model has a fair/acceptable predictive power.

Table 2. Binary Multiple Logistic Regression Model

	Increased Satisfaction (n=467)		
		OR 95% CI	
	OR	Lower limit	Upper limit
Age	1.014	0.990	0.991
Gender (ref = f) Male	0.382***	0.887	0.908
State (ref= 3 i.e. Zamfara)			
1 (i.e. Jigawa)	2.835**	1.936	4.152
2 (i.e. Katsina)	2.812**	1.899	4.163
Monthly salary	1.033	0.965	1.106
Received training (ref= no) Yes	1.132	0.830	1.545
NCE (ref = yes) No	1.178	0.851	1.631
Poor building (ref = agree) Disagree	1.028	0.744	1.419

Too-many classes (ref = agree) Disagree	0.610**	0.435	0.855
Too-many pupils (ref = agree) Disagree	0.523***	0.388	0.706
Skillful (ref = agree) Disagree	1.499	0.815	2.757
Tiresome (ref = agree) Disagree	0.811	0.600	1.096
Not smart (ref = agree) Disagree	1.439*	1.057	1.959
Support (ref = agree) Disagree	0.591***	0.439	0.797

Note: OR is odds ratio, CI is confidence interval, f is female. *p < .05. **p < .01. ***p < .001

Model Results

Although Table 2 shows results of all the predictors, only results of independent variables with statistically significant relationship with the outcome variable is interpreted and discussed. From the model, male teachers have 0.382 times odds of reporting increased satisfaction from their job than female teachers. Among the states included in the study, results show that teachers in Jigawa state have 2.84 times the odds of increased satisfaction with teaching than teachers in Zamfara; teachers in Katsina also have 2.81 times the odds of increased satisfaction with teaching than teachers in Zamfara.

Of the 7 variables that measured different aspects of schooling that influence motivation of teachers, only four variables were statistically significant. Teachers whodo not teach too many classes have 0.61 times the odds of increased satisfaction compared to those who do. Similarly, class size predicts job satisfaction. Those who do not teach classes with too many pupils/students have lower odds of increased job satisfaction than those who do (OR = 0.52). Teachers' perceptions of students predict increased job satisfaction. Teachers who think their students are intelligent enough to do well are more likely to report increased satisfaction than those who do not (OR = 1.44). The model also shows that teachers who do not get all the support they need to teach their pupils adequately are less likely to report increased job satisfaction than those who get the support they require (OR = 0.59).

DISCUSSION

From the model,male teachers are less likely than female teachers to report increased job satisfaction. Nigeria is a patriarchal society and in most homes, the men are expected to provide for their households, and they are expected to also hold positions that are highly valuedin the community. The more people in the community see teaching as a low-level profession (UNESCO-IICBA, 2017), the more likely it is for men who are teachers to feel less important about themselves and their position in the society. Thus, male teachers may not be satisfied, or show increased satisfaction with their jobs. Perhaps, this is different for female teachers, because women in the country are expected to be teachers and those of them who teach are seen as people with useful contributions to the community and their households. The study also shows that teachers in Jigawa and Katsina states are more likely to have increased job satisfaction than teachers in Zamfara state. The first two states are more developed, and Zamfara is relatively younger than these other states. Considering the

importance of governmental support in educational development, it can be argued thatteachers in Jigawa and Katsina may be exposed to better educational support than those in Zamfara. For example, state budget allocations for education in Jigawa and Katsina may be bigger than that of Zamfara, and more funding may translate to more resources for teachers in states with better funding. This could also result in increased job satisfaction.

The participants who teach too many classes (i.e. high workload) and those with too many pupils in their classrooms (i.e. large class size) are more likely to report increased job satisfaction than those who do not. Although these factors are expected to reduce job satisfaction, we found that these results do not support the hypothesis posed. An explanation for this peculiar finding is the poor educational state of Northern Nigeria (Antoninis, 2014; British Council, 2014). With the poor enrolment and retention of primary school pupils in North West Nigeria, teachers in this region of the country may not feel demotivated from having a full or over-full classrooms, or from having to teach too many classes. This is perhaps better than teaching a scanty class which some of these teachers are used to and not getting adequate satisfaction from being a teacher. In terms of teachers' perceptions, those who think their students are not intelligent or smart enough to perform well may be less motivated (UNESCO-IICBA, 2017), and this is sometimes related to reduced job satisfaction (Wolf, Torrente, Mccoy, & Rasheed, 2015). Similar to this, our results show that teachers who think their students are smart enough to do well are more likely to have increased job satisfaction than those who do not. This supports the study's hypothesis. Furthermore, we found that teachers who think they are not getting adequate support required to teach students are less likely to report increased job satisfaction than those who do and this also supports the study hypothesis. These supports could be in the form of providing incentives to encourage teachers, proper administrative management, availability of instructional and teaching materials, and governmental support. This is in line with studies conducted by Jerotich and Box (2015) and UNESCO-IICBA (2017) stating that the above mentioned factors are associated with low teachers motivation which may eventually result in reduced job satisfaction (Jerotich & Box, 2015; Li et al., 2014; Ololube, 2006).

Limitations and Strength of the Study

Because of the type of sampling method used, the generalizability of the findings is restricted. De, Pettersson, Morris, and Camron (2016) mentioned that:

The findings of the baseline quantitative survey are representative only of the cluster of treatment and control schools where at least one of the TDP-selected (treatment) or control teachers teaches English, Maths or Science to Grade 3 pupils. Results are not representative of the three Phase 1 TDP states more broadly. This is because of the purposive selection of TDP clusters by State Universal Basic Education Boards (SUBEBs) in each Local Government Authority (LGA), rather than a random selection from a comprehensive list of potential TDP clusters in each state (p. vi).

Also, because the study is a cross sectional type, there is no way of knowing if the direction of association between the predictors and the outcome remain the same or change with time.The strength of the study lies in the importance of studying teacher motivation and job satisfaction in Northern Nigeria. Apart from the lack of studies relating to the subject in Nigeria, the role teachers play in addressing issues of enrolment and retention of primary and junior secondary school students cannot be overemphasized. This study explores factors that may result in low motivation of teachers as well as poor job satisfaction.

Implications of the Study

Improving adult literacy levels in the country is constrained by many factors especially in Northern Nigeria where there are continuous threats of ethno-religious unrest, communal clashes, and poverty (Ogundele, 2014). Studies that target how to improve teachers' performance can be used to address the adult literacy issues in the region. However, for this to be possible, there is also the need to ensure resources are in place to encourage and motivate teachers. Teachers who are motivated are likely to have increased job satisfaction, and they tend to be high performing too(Bozpolat, 2016). High performing teachers may be effective in the classroom and outside the classroom as key

stakeholders in the fight against high dropout rates of students, low enrolment and retention of students in primary and junior secondary schools. Educational policies in the country that are geared towards improving access to universal primary education as a means to reduce poverty and improve quality of life should consider includingways of motivating teachers in their frameworks in order to achieve better outcomes in their interventions.

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