

**PROPRIETOR INCENTIVES AND SUPERVISION AS  
CORRELATES OF SECONDARY SCHOOL SCIENCE,  
SOCIAL SCIENCES AND HUMANITY TEACHERS'  
WORK MOTIVATION IN ILORIN METROPOLIS,  
NIGERIA**

**\* <sup>1</sup>Dr.Bello, GANIYU  
Senior Lecturer**

**Department of Science Education, University of Ilorin, Ilorin, Nigeria  
P.M. B 1515 Ilorin, Nigeria  
bello.g@unilorin.edu.ng  
2348033882477**

**<sup>2</sup>Bello Ilias AYO**

**Administrative Officer  
Department of Management Information System,  
Nigeria Police Academy  
Wudil, Kano, Nigeria  
Cent4aybob@gmail.com  
2348034757239**

**and**

**<sup>3</sup>Dr. Bello, Zakariyau ADEBAYO  
Lecturer II**

**Department of Integrated Science, Kwara State College of Education  
Ilorin.  
P.M. B 1527 Ilorin, Nigeria  
Zakbay26@gmail.com  
2348036092412**

**Abstract:** *In this descriptive survey study, investigation was made to determine the level of work motivation among secondary school science, social sciences, and humanities teachers and ascertained whether proprietor incentives and supervision are predictors of work motivation among the teachers in Ilorin, Kwara State, Nigeria. Six hundred (600) secondary school teachers were purposively selected from 63 senior secondary schools within Ilorin metropolis. Three*

*valid and reliable research instruments were designed by the researchers to collect data, namely; Proprietor Incentive Questionnaire (PIQ), School Supervision Questionnaire (SSQ), and Teacher Motivation Scale (TMS). The reliability coefficients of the instruments were 0.94, 0.87, and 0.87, respectively. Multiple Regression Analysis, statistical technique was employed to analyze the data gathered using SPSS version 16. Findings revealed that the teachers were moderately motivated and significant difference in favour of public school teachers existed in the levels of teacher work motivation. Social science and science teachers were the most and the least motivated. Also, significant relationships existed among predictors and criterion variable, while Job Security was identified as the most influential variable in predicting teacher work motivation. It was concluded that the teachers were not fully motivated. The researchers advocated that; school proprietors, should avoid mass retrenchment of teachers, and implement the full complement of the Teacher Special Salary Scale. Supervisors should jettison the traditional 'catch and punish' approach dreaded by the teachers in favor of teacher-friendly mentor-supervisor approach.*

**Keywords:** *Motivation; Teacher; Job security; Supervision; Proprietor Incentives; Science Teachers; and Secondary Schools.*

## **Introduction**

The crucial role of motivation in job performance and the attainment of organization goals has sustained education researchers' interest on teachers' work motivation. Several theories and definitions of motivation abound in literature, none of which is universally accepted. Indeed, according to Souders (2019, November 11), there are as many faces of motivation as there are human desires. This is a reflection of the multidimensional nature of motivation which is responsible for its numerous definitions. As cited by Saari and Judge, (2004) Locke defines motivation as 'a pleasurable or positive emotional state resulting from the appraisal of one's job experiences' Badubi (2017) explained that there are two components of this definition, the first is the employer's attachment to job while the second is the employer's assessment of the worker's work and reason(s) for behaving in a particular manner. In the view of Verywell Mind (2019, September 30), motivation refers to the process that sets in motion, guides, and sustains behaviors directed toward a specific goal. In a simple sense, motivation can be conceived as a process that stimulates individuals to undertake specific

actions to achieve a goal. It implies that in the teaching-learning situation, motivated teachers are in prime position to enhance students' performance.

Intrinsic motivation and extrinsic motivation are the two major categories of motivation. According to Legg (2019, February 11), intrinsic refers to motivational stimulus that originated from within the individual. It is a behavior or action-driven by internal satisfaction. It is the internal drive to do what is interesting to you because you enjoy doing it without obvious external rewards. The reward in intrinsic motivation is the activity itself. Extrinsic motivation is driven by an external reward such as money, praise fame and so forth. In addition, the fear of punishment also serves as a stimulus for extrinsic motivation, as explained by Rochaun (2017, September 25). To enhance effective and efficient performance by employees, proprietor/ management often use incentives to motivate employees through the provision of monetary and non-monetary incentives. This is to ensure that employees meet or even surpass the expectation of the proprietors/management (Richard & Hendry, 2014). Supervision is also a means of motivating supervisees use by proprietors /management. Supervision, according to Cambridge Dictionary (n. d.) is 'the act of watching a person or activity and making certain that everything is done correctly, safely, etc.' Supervisors motivate employees through support, encouragement, and empowerment. Patrick, Role, and Lazarus (2014) noted that work supervision is a major job motivation among the teachers. Similarly, according to Park, Kang, and Kim (2018) supervisors play crucial roles in work motivation of employees. They are inseparable component of human service organization servicing as bridge between the expectations of goals and outcomes for their organization. They serve as leader, mediator, mentor, and manger; consequently, they direct their supervisees' activities and motivation towards the attainment of organization goals, according to Lewis, Packard, and Lewis (2012).

Government and proprietors of private schools in Ilorin, Kwara State provide incentives to teachers in public and private schools respectively. The incentives are expected to serve as external motivation to the teachers towards the achievement of goals of schools especially improved learning outcome. Incentives enjoy by teachers especially in public schools in Ilorin, Kwara State include; sponsorship to training workshops, conferences, seminars and in-service training courses (Ilorin Info 2012, October 28). Teachers also, enjoy promotion but it is irregular, and often does not translate to financial benefit immediately as reported by The Punch Newspaper (2018, January 5). School facilities in public schools are in deplorable state except in few selected schools that enjoy periodic upgrading (Pulse, 2016 April 29). Although teachers in the state are on Teacher Special

Salary Scale, the special salary package has not been fully implemented and their salary and allowance are irregular (*Naija News (2017, December 23)*).

Payment of Science Teacher Allowance is an additional monetary incentive that some category of teachers enjoys in the state. However, the allowance, ₦ 25:00 per month is ridiculously low as indicated by the Kwara State Ministry of Education, Science and Technology (2010, August 20). Teachers also enjoy annual leave bonus, but payment is irregular. In the area of job security, retrenchment for various reasons occurs periodically (Premium Times; 2012, May 10). The transformation of the Inspectorate Unit of the Ministry of Education and Human Capital Development to Quality Assurance Bureau in 2009 to provide advisory and supportive services is another form of incentive to teachers. (ESSPIN, 2010). Summarily, the most common incentives that teachers in Kwara State like other states in Nigeria enjoy are, Monetary, Training, Promotion, Facilities /Work environment, Job Security and Supervision. In spite of these incentives, among others, students' performance remains relatively unimpressive.

Students' performance at the West African Senior School Certificate Examinations (WASSCE) in Ilorin, Kwara State, and Nigeria, in general, remain unimpressive. Majority of the students that sat for the WASSCE often fail to pass with five credits, including English and Mathematics, the benchmark for admission into tertiary educational institutions in the nation. For instance, the West African Examinations Council (WAEC) results for 2016-2018 statistics released by the National Bureau of Statistics (2019) shows that only 36.5% and 52.3% of private and regular candidates respectively that sat for WASSCE in 2016 passed with 5 credits and above including English and Mathematics. This translates to a national average of 44.4%. In 2017 only 24.00% and 56.53% of the private and regular candidates respectively passed with 5 credits and above including English and Mathematics. The national average for 2017 stood at 40.26%. The data for 2018 WASSCE results showed that 33.81% and 48.15% of the private and regular candidates respectively passed with 5 credits and above including English and Mathematics, with a national average of 40.98%. The performance of candidates from Kwara State that sat for the WASSCE between 2016 and 2018 was below the national average as shown in the WAEC results for 2016-2018 statistics released by the National Bureau of Statistics (2019). Only 41.1% (27.1% private and 55.1% regular), 40.21% (18.4% private and 62.03% regular) and 32.46% (15.69% private and 49.24% regular) of both the private and regular candidates from Kwara State that sat for the WASSCE in 2016, 2017 and 2018 respectively passed with 5 credits and above including English and Mathematics. This unimpressive students' performance is a major concern for stakeholders in

secondary school education. It seems that there is a lack of motivation on the part of the teachers to perform their job satisfactorily as opined by Osalusi & Onipede (2017). Indeed, Ushie and Agba (2010) observed that in Nigeria, workers including teachers are routinely deprived of regular payment of salaries, and fringe benefits which consequently impacts negatively on their efficiency. Also, Jacobson (2013) reported that in the five South-south states in Nigeria, science teachers were poorly motivated. Poorly motivated teachers will likely exhibit negative attitude to work such as habitual lateness to school, habitual absenteeism, and teaching without preparation of lesson notes. It is thus imperative to motivate teachers by providing incentives.

In view of the fact that teachers are the sole determinant of the quality of instructional delivery and by extension the quality of learning outcome, researchers were prompted to focus attention on teacher work motivation among other teacher-related factors that impact on students' performance. Although teacher work motivation is not the only factor that impacts upon students' performance; nevertheless, literature has established its significant impact on students' performance. Mustafa and Othman (2010); Nyakundi, Raburu, and Okwara (2019); and Nkirote and Thinguri (2020), among others, clearly established a positive correlation between teacher work motivation and students' academic performance.

Nyakundi, Raburu and Okwara, (2019) carried out study to examine the influence of teacher work motivation on academic performance of pupils in primary schools in Kenya. The study was carried out among a sample of 145 head teachers and 843 teachers in 15 schools in Nyamira south sub-country, Kenya. Stratified random sampling procedure was used to select the sample. The researchers adopted the mixed-method approach to gather both quantitative and qualitative data using interview schedules and questionnaires, respectively. Descriptive and inferential statistical tools were used to analyse the quantitative data while the qualitative data were subjected to thematic analysis. Results of the study showed that the teachers had moderate levels of motivation while students' performance was viewed to reflect the level of the teacher's work motivation. Similarly, Adelabu (2005) and Martin, Joseph, and Albert (2012) reported that teachers in Nigeria and Ghana respectively were generally not fully motivated. The studies conducted by Haki Elimu, (2011) Kalage, (2016) even reported that teachers were at low level of work motivation in Tanzania.

A similar study was carried out in Nigeria among biology teachers in Calabar, Nigeria by Ibok, (2020). The researcher examined the effects of teacher work motivation on students' performance in biology. The sample size for the survey study was 200 biology teachers selected from nine public secondary schools while a questionnaire was used for data collection. Results

of the study showed relationship between students' performance in biology and teachers' condition of service, regular salary payment and promotion, Nkirote, and Thinguri (2020) examined the influence of teacher work motivation on learning outcomes among pre-primary learners in the more sub county, Kenya. The researchers adopted mixed research method which involves the concurrent triangulation design. Stratified random sampling method was used to select 3,426 participants that consisted of 61 head teachers, 157 teachers and 3,208 pupils. Data gathering was carried out using a combination of questionnaire, interview, and checklist. Findings of the study revealed that motivated teachers produced better outcomes because the work harder.

Several factors have been identified by researchers to influence teacher work motivation, prominent among which are proprietor incentives such as training, promotion, school facilities, job security, monetary incentives such as bonus and special allowance, type of school, qualification, gender as well as supervision. For instance, Osalusi and Onipede (2017) noted that issues of regular payment of salary, reward and punishment on job performance, job satisfaction and accomplishment, monetary incentives, bonus, flexible work hours, training, and work environment among other factors influences work motivation. Azash, Safare, Thirupalu, and Subban (2012) conducted a study to determine if job characteristics can predict work motivation and job satisfaction of bank employees. Simple random sampling method was used to select 215 bank officers in the cities of Andhra Pradesh. Data collection was carried out using a combination of questionnaire, interview and observation. In addition, secondary data was collected from bank reports, journals, and books. The statistical tools used for data analyses were, Mean, Standard Deviation, Correlation and Multiple Regress Analysis. Results of the study revealed that job characteristics were a predictor of job motivations.

Al-Salameh (2014) conducted a study to determine the relationship between teacher work motivation and gender, school type and qualification. The study was conducted among 312 Jordanian primary stage teachers. A work motivation scale developed by the researcher was used to collect data in the study. Statistical tools used to analyze the data include, Mean, Standard Deviation, t-test and Analysis of Variance. The results revealed that the teachers had good level of work motivation, while the motivation level of the public and private schools' teachers were not significantly different. Similarly, there was no significant difference in the work motivation level of teachers based on age. Female teachers were more motivated than male teachers, while teachers having bachelor were found to be more motivated than those with diploma.

Louis, Tara, and Anitha (2017) investigated the importance of teachers' biographical variables on their work motivation. The study was carried out among 450-degree college teachers in government, private aided and private unaided colleges in Bangalore city. The teachers were selected through stratified sampling procedure, while a proforma developed by the researchers was used to collect data in the study. Mean Standard deviation and t-test statistical techniques were used for data analysis in the study. The results showed that there was no significant difference in the work motivation of the teachers based on gender, age, experience, and marital status. Furthermore, the result indicated that teachers working in private aided and private unaided colleges were more motivated than teachers working in government colleges. The result also showed that there was a significant difference in the work motivation of arts and science teachers. The science teachers were more motivated than arts and commerce teachers while the art teachers were more motivated than commerce teachers.

Jaja, Thamrin, and Widodo (2015) examined the effects of supervision, leadership, and working motivation to teachers' performance on junior high schools in the city of Bogor, West Java, Indonesia. Proportional random sampling method was used to select 289 teachers that participated in the study. Data analysis in the survey study was carried using regression and correlation analysis techniques. The results indicated a positive relationship among the variables. It was concluded that supervision, leadership, and work motivation can boost the performance up to 72.4%, 72% and 77.2 % respectively.

Basuki (2017) examined the contribution of supervision implementation and work motivation toward the performance of elementary school physical education teachers in Banjarmasin, Indonesia. The study was carried out among 148 teachers while questionnaires were used to gather data in study. A combination of Path Analysis with Structural Equation Modeling was used to analyses the data gathered in the study. Findings showed that supervision implementation and work motivation significantly contributed to the teachers' performance. Lilis, Ahmad, and Muhammad (2018) carried out a study to determine the influence of supervisor's academic supervision with commitment and motivation of teacher's work behavior in Banjarmasin, Indonesia. Proportional random sampling method was used to select 178 participants from a population of 320. A questionnaire was used to collect data in the study. Structural Equation Modeling with Amos was used to analyses the data collected in the study. Findings from the study showed that; supervisor's academic supervision influenced teacher's work motivation, work commitment and behavior. Park, Kang, and Kim, (2018) examined how supervisor support contributes to motivation, training and job performance. In the study, the responses of 216 participants from

educational organizations in the USA were subjected to analyses. Results indicated that the support of supervisor for training directly affected motivation to learn.

Several studies were also, conducted to identify predictors of work motivation. For instance, Kiyoshi (2006) reported that training affects teacher motivation significantly. Nyakundi, (2012) noted that salary and allowances, job satisfaction, professional development training programme and work situational-factors influences teachers' motivation and job performance. While Lubna and Khawaja (2012) report that job security is a good predictor of teacher motivation, Muhammad, Musawwir, Gulnaz, Huma, and Adnan, (2012) reported that job satisfaction is a predictor of teacher motivation. Salary, recognition, promotion, and working conditions are predictors of teacher motivation according to Muhammad and Neelam (2013). Martin, Joseph, and Albert (2012) submitted that recognition and work conditions are the best predictors of motivation of teachers. Similarly, Oredein and Awodun (2013) reported that regular payment of salary and allowance enhances teacher motivation. However, Patrick, Role, and Lazarus (2014) concluded that work supervision is a major job motivation among the teachers. Omole, Ajani, Odunjo, and Olaide (2019) carried out a study to determine if salary and work motivation can predict teachers' job satisfaction. The study was carried out among 214 senior secondary school teachers in Ekiti, Nigeria. Three standardized instruments namely, *and Personal Information Questionnaire, Work Extrinsic and Intrinsic Motivation Scale and Job Satisfaction Scale* were used to collect data in the study. *Findings of the study indicated that salary and work motivation were predictors of job satisfaction but gender does not.*

## **Material and Method**

*Research Type:* This study adopted the descriptive survey research method of the correlational type; thus, it was an ex post facto study. Descriptive research gives an actual description of a situation and enables the researcher to collect data from a representative of sample of the entire population. Simon and Goes (2011) noted that the focus of. correlational studies are to investigate one or more attributes of a group in other to find out the extent to which the attributes vary together. This study sought to determine the relationship between proprietor incentives and supervision as predictor variables and teachers' work motivation as the criterion variable. Hence, the researchers considered that adoption of the correlational type of descriptive research method to be appropriate.

*Statement of the Problem:* Extant literature establishes the crucial role of employees' work motivation in the realization of the goals and objectives of human service organizations such as educational institutions. In addition,



incentives that are commonly provided by proprietors/managements of human service organizations to employees such as; Monetary, Training, Promotion, Facilities /Work environment, and Job Security, have equally been established in literature to influence employees' work motivation. However, extant literature on teacher work motivation focused mostly on work motivation among teachers in public schools. Relatively little is known about work motivation among private school teachers in comparison to their counterparts in public schools especially in Nigeria in spite of the existence of dichotomy in the incentives available to teachers in public and private schools. Similarly, it seems that the incentive that is more influential in predicting teacher work motivation than others is yet to be sufficiently established in extant literature. In addition, supervision and teachers' field of specialization (science, social sciences and humanities) attracted little attention in most extant literature on teacher work motivation. Therefore, this descriptive survey study examined and compared the level of work motivation among secondary school science, social sciences and humanities teachers in public and private schools. It also, ascertained whether proprietor incentives (Monetary, Training, Promotion, Facilities /Work environment, and Job Security), and supervision are predictors of work motivation among the public and private schools' teachers in Ilorin, Kwara State, Nigeria.

*Purpose of the Study:* The purpose of this study was to determine and compared the level of work motivation among secondary school science, social sciences and humanities teachers in both public and private schools. It also, sought to ascertain if proprietor incentives and supervision are predictors of work motivation among the public and private schools' teachers in Ilorin, Kwara State, Nigeria. Specifically, it determined:

- the level of work motivation among secondary school science, social sciences and humanities teachers in public and private schools;
- the relationship between the predictor variables, (proprietor incentives- Monetary, Training, Promotion, Facilities/Work environment and, Job Security) and Teacher work motivational level;
- the predictor variable that is the most influential in predicting the work motivation level of secondary school teachers; and
- if any predictor variable does not significantly contribute to the prediction model.

*Research Questions:* The following five research questions were raised and answered in this study:

1. What is the level of work motivation among secondary school teachers in public and private schools?
2. What is the level of work motivation among Science, Social Science, and Art/Humanities secondary school teachers?

3. Is there any significant relationship among the predictor variables, proprietor incentives; Monetary, Training, Promotion, School Facilities, Job Security, Supervision, and the criterion variable; motivational level?
4. Does the obtained regression equation resulting from the set of the predictor variables allow for reliable prediction of the criterion variable?
5. Which of the predictor variables is the most influential in predicting the work motivation level of secondary school teachers?

*Research Hypotheses:* Two null hypotheses were generated from the research questions and were tested using the Chi-square statistical technique at 0.05 alpha level. The two hypotheses were stated below:

- $H_{01}$  :There is no statistical significant difference between the motivation levels of teachers in private and public secondary schools.
- $H_{01}$  :There is no statistical significant difference between the teacher work motivation levels across teachers' areas of specialization.

*Population, Sample, and Sampling Technique:* The population for the study consisted of all secondary school teachers in Ilorin metropolis. The population was stratified into three strata as follow: Science, Social sciences, and Arts/Humanity teachers. Purposive sampling technique was then employed to select 600 teachers consisting of 200 science teachers, 200 social sciences teachers, and 200 arts/humanity teachers. The purposive selection was based on teachers that indicated interest in participating in the study through the completion of Informed Consent Form made available to teachers in all 63-government approved/registered senior secondary schools within the Ilorin metropolis.

*Research Instruments:* The following instruments were designed, validated, and used for data collection:

1. Proprietor Incentive Questionnaire (PIQ),
2. School Supervision Questionnaire (SSQ), and
3. Teacher Motivation Scale (TMS).

All the three instruments were self-constructed by the researchers following standard guidelines of instrument construction. The Proprietor Incentive Questionnaire (PIQ) was a 28 items questionnaire rated on a 4 - point Likert scale ranging from 4 (Very High) to 1 (Very Low), designed to collect data on proprietor incentive such as; Monetary incentives, training opportunities, promotion, job security, and school facilities. The School Supervision

Questionnaire (SSQ) was a 15 items questionnaire designed to capture the rate of supervision in schools and supervisor attitudes to teachers. Lastly, the Teacher Motivation Scale (TMS) was a 50 initial items scale but finally reduced to 14 items scale after construct validation. The scale was designed to capture secondary school teachers' work motivation levels. Each item was also scored on a 4 - point Likert scale ranging from 4 (Very High) to 1 (Very Low). In this measuring scale, a mean score of less than 2.00 was considered to be a low level of work motivation, while a mean score of between 2.00 and 3.00 indicated a moderate level of work motivation, and mean score above 3.00 was considered to be a high level of work motivation.

*Validation and Reliability of the Instruments:* A field test was carried on the three (3) instruments in order to establish the psychometric properties of the instruments. The field testing was carried out in five (5) private secondary schools and five (5) public secondary schools in Ilorin. The schools and 50 teachers that took part in the field testing of the instruments were not used for the main study. The internal consistency of PIQ, SSQ and TMS was estimated at .94, .87, .87, reliability coefficient respectively, using SPSS vision 20 statistical package

## Results

The results of dataanalysed in the study were presented in line with the research questions and hypotheses.

*Research Question 1:* What is the level of work motivation among secondary school teachers in public and private schools?

Table 1 revealed that 40.3% of private secondary school teachers were within the range of low motivation level, 32.0% were within moderate motivation level, and only 27.7% of private secondary school teachers were within the range of high motivation level. On the other hand, only 23.3% of public secondary school teachers were within the range of low motivation level, 37.0% were within the moderate motivation level, and 37.7% were within the region of high motivation level. In general, 31.8%, 34.5%, and 33.7% of both teachers in public and private secondary schools were at a low, moderate, and high level of work motivation, respectively. This result revealed that slightly more teachers were at a moderate work motivation level than those at low and high motivation levels.

**Table 1, School Type and Teacher Work Motivation Level Cross-tabulation**

Sch.	Privat	Count	Motivation Levels			Total
			Low Motivation level	Moderate Motivation level	High Motivati on level	
			121	96	83	300

Type	School	% within School Type	40.3%	32.0%	27.7%	100.0%
	Public School	Count	70	111	119	300
		% within School Type	23.3%	37.0%	39.7%	100.0%
		Count	191	207	202	600
Total		% within School Type	31.8%	34.5%	33.7%	100.0%

*Hypothesis 1:* There is no statistically significant difference between the motivation levels of teachers in private and public secondary schools. This hypothesis was tested using the chi-square statistical tool. The result ( $X^2(2) = 21.121$ ,  $p = 0.000 < 0.05$ ), as shown in Table 2, indicated that a significant difference existed between the motivation level of teachers in private and public secondary schools because the P-value (0.000) is less than 0.05. Therefore, the null hypothesis was rejected. The significant difference was in favor of teachers in public secondary schools with a higher percentage of teachers at moderate and high motivation levels than their counterparts in private schools, as indicated in Table 1.

Table 2  
**Chi-Square Tests for School Type and Teacher Work Motivation Level**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.121 <sup>a</sup>	2	.000
Likelihood Ratio	21.323	2	.000
Linear-by-Linear Association	19.237	1	.000
N of Valid Cases	600		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 95.50.

*Research Question 2:* What is the level of work motivation among Science, Social Science, and Art/Humanities secondary school teachers?

Table 3. **Area of Specialization and Motivation Level Cross-tabulation**

Area of Specialization		Motivation			Total
		Low Motivation Level	Moderate Motivation Level	High Motivation Level	
Science	Count	190	10	0	200
	% within Area of Specialization	95.0%	5.0%	0.0%	100.0%
Social Science	Count	1	83	116	200
	% within Area of Specialization	0.5%	41.5%	58.0%	100.0%
Art and Humanities	Count	0	114	86	200
	% within Area of Specialization	0.0%	57.0%	43.0%	100.0%
Total	Count	191	207	202	600
	% within Area of Specialization	31.8%	34.5%	33.7%	100.0%

Table 3 revealed that 58.0% and 43.0% of the social science and arts/humanities teachers were at the high level of work motivation respectively, while none of the science teachers were at a high level of work motivation. Most (95.0%) of the science teachers were at a low work motivation level, while the majority (57.0%) of the arts/humanities teachers were at a moderate work motivation level as indicated on the Table.

*Hypothesis 2:* There is no statistically significant difference between the teacher work motivation levels across teachers' areas of specialization.

This hypothesis was also tested using the chi-square statistical tool. Table 4 showed that the chi-square value ( $X^2(4) = 566.352$ ,  $p = 0.000 < 0.05$ ,) was significant since the P-value (0.000) is less than 0.05. Therefore, hypothesis 2 was rejected. This implies that a significant difference existed between the work motivation levels of science, social science, and arts/humanities teachers. That is the difference in the percentages of social science, arts/humanities and science teachers at each level of motivation were significant in favor of social science teachers with the highest percentage of teachers at high level of work motivation.

**Table 4. Chi-Square Tests for motivation levels across teachers' area of specialization**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	566.352 <sup>a</sup>	4	.000
Likelihood Ratio	681.963	4	.000
Linear-by-Linear Association	290.413	1	.000
N of Valid Cases	600		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 63.67.			
b. Computed only for a 3x3 table			

*Research Question 3:* Is there any significant relationship among the predictor variables, proprietor incentives; Monetary, Training, Promotion, School Facilities, Job Security, Supervision, and the criterion variable; motivational level?

Table 5 revealed the 21 possible relationships among the seven variables, 11 (52.4%) of which were statistically significant positive relationships, while 3 (14.3%) were statistically significant negative relationships and the remaining 7 (33.3%) were not a statistically significant relationship. A statistically significant positive relationship existed between; Motivation and Monetary incentives, Motivation and Job Security, Monetary incentives and Training, Monetary incentives and Promotion, Monetary incentives and Job Security, Monetary incentives and, School facilities, Training and Promotion, Training and Job Security, Training and School facilities, Promotion and Job Security, School facilities and Supervision. The highest positive relationship (.499<sup>\*\*</sup>) existed between monetary incentives and promotion, while the lowest positive relationship (.107<sup>\*\*</sup>) existed between Monetary incentives and school facilities. Table 5 equally revealed that a statistically significant negative relationship existed between; Motivation and School Facilities, Promotion and Supervision, Job security, and School Facilities. Statistically significant relationship does not exist between; Motivation and Training, Motivation and Promotion, Motivation and Supervision, Monetary Incentive and Supervision, Training and Supervision, Promotion and School Facilities, Job security and Supervision. The result showed significant correlation among the variables of the study, and none of the variables were highly correlated; hence, there were no issues of multicollinearity among the variables.

**Table 5. Correlation and Descriptive Statistics among the Variables of the study**

	Motivation	Monetary	Training	Promotion	Job security	School facilities	Supervision
Motivation Correlation Sig.	1						
Monetary Correlation Sig.	.131** .001	1					
Training Correlation Sig.	.048 .238	.426** .000	1				
Promotion Correlation Sig.	.035 .000	.499** .000	.365** .000	1			
Job security Correlation Sig.	.313** .000	.427** .000	.322** .000	.419** .000	1		
School facilities Correlation Sig.	-.103* .012	.107* .009	.111* .007	.079 .052	-.123** .003	1	
Supervision Correlation Sig.	.061 .135	-.047 .249	.005 .906	-.124** .002	-.149 .231	.179** .000	1

Note: \*\*. Correlation is significant at the 0.01 level (2-tailed), \*. Correlation is significant at the 0.05 level (2-tailed).

*Research Question 4:* Does the obtained regression equation resulting from the set of the predictor variables allow for reliable prediction of the criterion variable?

A model summary typically shows three multiple correlation indices. These are multiple correlation ( $R$ ) = .360, multiple correlation squared ( $R^2$ ) = 0.121 and adjusted squared multiple correlation ( $R^2_{adj}$ ) = .112. The correlation between the predictor variables and the criterion was shown in Table 6 by ( $R$ ), which was 0.360. The Table also showed the value of  $R^2_{adj}$  to be 0.112. This means that 11.2% of the variance observed in teachers' work motivation level was accounted for by the six predictor variables.

**Table 6. Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.360 <sup>a</sup>	.121	.112	9.538

Predictors: (constant), supervision, monetary, school facilities, promotion, training, job security.

The ANOVA summary on Table7 showed that  $F(6, 593) = 13.652$ ,  $P < 0.05$  and that the F- ratio was statistically significant at 0.000. This result clearly indicated that the combination of the six predictor variables allows reliable prediction of the criterion variable. The composite predictions of Monetary, Training, school Facilities, Job Security, and Supervision on teachers' work motivation level shown in tables 6 and 7 indicated that all the predictors' variables significantly ( $F(7452.310) = 13.652$ ,  $p < 0.05$ ) predicted teachers' work motivation. And that a positive relationship ( $R = .360$ ) existed between the predictor's variables and the criterion variable. Since the adjusted  $R^2$  was .112, it can be said that Monetary incentives, Training, School Facilities, Job Security, promotion, and Supervision predicted 11.2% variance in Teachers' work motivation. Hence, it is obvious that the predictor variables allow a reliable prediction of the criterion variable.

Table 7

**ANOVA<sup>b</sup> Summary**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	7452.310	6	1242.052		
Residual	53949.875	593	90.978	13.652	.000 <sup>a</sup>
Total	61402.185	599			

a. Predictors: (constant), supervision, monetary, school facilities, promotion, training, job security

b. Dependent variable: work motivation

*Research Question 5:* Which of the predictor variables is the most influential in predicting the work motivation level of secondary school teachers?

Table 8 showed that four of the independent variables (Monetary, Promotion, Job security, and Supervision) significantly contributed to teachers' work motivation. *Job Security* ( $\beta = 0.339$ ,  $t(599) = 7.434$ ,  $p < 0.05$ ) has the strongest predicting effect on teachers' work motivation, followed closely by *Monetary Benefit* ( $\beta = 0.138$ ,  $t(599) = 2.380$ ,  $p < 0.05$ ), *Supervision* ( $\beta = 0.080$ ,  $t(599) = 2.022$ ,  $p < 0.05$ ), and *Promotion* ( $\beta = -0.110$ ,  $t(599) = -2.342$ ,  $p < 0.05$ ). While Training and School Facilities did not contribute significantly to teachers' work motivation levels. This result means that Job security was the most influential variable in predicting the work motivation level of secondary school teachers in Ilorin metropolis.



Table 8

**Standardized Beta Coefficients<sup>a</sup>**

<b>Model</b>	Unstandardized Coefficients		Standardized coefficients		
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig</b>
(Constant)	17.672	4.991		3.541	.000
Monetary	.223	.094	.138	2.380	.018*
Training	-.110	.112	-.043	-.982	.327
Promotion	-.911	.389	-.110	- 2.342	.020*
Job security	1.465	.197	.339	7.434	.000*
School facilities	-.142	.083	-.070	- 1.719	.086
Supervision	.081	.040	.080	2.022	.044*

a. Dependent Variable: Teachers' Work Motivation

*Summary of Findings:*

- Slightly more teachers in public and private secondary schools were at a moderate work motivation level than those at low and high motivation levels.
- Significant difference existed between the work motivation levels of public and private secondary school teachers in favour of teachers in public secondary schools with a higher percentage of teachers at moderate and high motivation levels than their counterparts in private schools.
- Majority of the social science and arts/humanities teachers were at a high and moderate level of work motivation respectively, while most of the science teachers were at a low level of work motivation.
- Significant difference existed between the work motivation levels of science, social science, and arts/humanities teachers. in favour of social science teachers with the highest percentage of teachers at a high level of work motivation.
- Statistically significant positive relationships existed between 11 out of the 21 possible relationships among the variables, 3 were statistically significant negative relationship, and the remaining 7 were not statistically significant.

- Four of the independent variables (Monetary, Promotion, Job security, and Supervision) significantly contributed to teachers' work motivation
- All the predictor variables significantly predicted teacher work motivation.
- Job security has the strongest predicting effect on teacher work motivation, followed closely by monetary incentives, Supervision, and Promotion.

## **Discussion**

Findings in this study showed that work motivation among secondary school teachers in Ilorin metropolis was at a moderate level. This result could be attributed partially to irregular salary, allowances, and promotion of the teachers. The implication of this finding is that the teachers were yet to be sufficiently motivated to discharge their responsibilities. Since it has been established in literature that positive correlation exists between teacher work motivation level and students' academic performance, the performance of secondary students in Ilorin and Kwara State in general at the WASSCE could be a reflection of their teacher work motivation level observed in this study. This result corroborated the finding of Adelabu (2005) which revealed that teachers in Nigeria were generally not fully motivated. It equally corroborated the results of similar study conducted in Ghana by Martin, Joseph, and Albert (2012) and the studies carried out in Kenya (Nyakundi, 2012; Nyakundi, Raburu & Okwara, 2019) who also, reported that teachers in these nations were not sufficiently motivated. However, the finding is in contrast to the result of a similar study carried out in Tanzania by HakiElimu (2011) and Kalage (2016) which reported that teachers were at low level of work motivation. The finding was equally contrary to the report of the study conducted by Al-Salameh (2014) among Jordanian primary stage teachers who were noted to be highly motivated.

Results of this study showed that significant difference existed between the levels of work motivation of public and private secondary school teachers in favour of teachers in public secondary schools. This could be ascribed to a relatively high level of job security enjoy by teachers in public secondary schools among other factors. Indeed, this finding lends credence to another result in this study which showed that job security was the strongest predictor of teacher work motivation. However, the finding contracted the report of Al-Salameh (2014) which showed that the motivation level of the public and private schools' teachers was not significantly different. Similarly, it was at variance with the finding of Louis, Tara, and Anitha (2017) which indicated that teachers in private schools

were significantly more motivated than their counterparts in Bangalore city public schools.

This study revealed that a significant difference existed between the work motivation levels of science, social science, and arts/humanities teachers in favour of social science teachers, while the science teachers were at a low level. This may be attributed in part to the dashed hope of science teachers in the restoration of payment of Science Teachers Allowance. A decade ago, Kwara State Ministry of Education, Science and Technology (2010, August 20) promised to restore and increase the ridiculously low (₦ 25:00 per month) allowance to the science teachers. The finding was consistent with the outcome of a similar study carried out by Louis, Tara, and Anitha (2017) which showed that there was a significant difference in the work motivation of arts and science teachers. Also, the result was similar to reports of the study carried out by Jacobson (2013) in the five South-south states in Nigeria and the study conducted by Oredein and Awodun (2013). These studies indicated that science teachers were poorly motivated and noted a significant relationship between regular payment of science teachers' allowance and academic performance of the science students. However, the result was not consistent with that of Louis, Tara, and Anitha (2017), who reported that science teachers were more motivated than arts and commerce teachers while the art teachers were more motivated than commerce teachers.

The result of this study indicated that significant relationships existed between the predictors and the criterion variables. This implies that all the predictor variables are potent tools for motivating the teachers. The finding was consistent with several other similar studies such as Muhammad, Musawwir, Gulnaz, Huma, and Adnan,(2012), Lubna and Khawaja (2012),Oredein and Awodun (2013),Patrick, Role, and Lazarus (2014), and Omole, Ajani, Odunjo, and Olaide (2019).The results also indicated that school supervision was significant as one of the variables that predicted teachers' work motivation. The finding could be ascribed in part, to the advisory and supportive services provided to teachers by the Quality Assurance Bureau of the State Ministry of Education and Human Capital Development. This finding was in accord with that of Patrick, Role, and Lazarus (2014) which indicated that supervision is a major job motivation among the teachers.

The results of this study showed that four of the independent variables (Job security, Monetary, Promotion, and Supervision) significantly contributed to teachers' work motivation and that Job security has the strongest predicting effect on teacher work motivation. This implies that proprietors of schools could leverage on these variables to significantly enhance teacher work motivation than other variables. This result may be due to the premium value placed on job security in the face of continuous

increase in the number of unemployed graduates in the nation and the threat of layoff could serve as work motivator. However, the finding was not consistent with the results of similar studies such as, Martin, Joseph, and Albert (2012), Muhammad, and Neelam (2013) which showed that recognition and work conditions were the best predictors of motivation of teachers.

*Conclusion:* Premise on the major findings in this study, the researchers concluded that both public and private senior secondary school teachers in Ilorin metropolis were not fully motivated while, significant difference in favour of public-school teachers existed in teacher work motivation levels. Social science teachers were the most motivated while Science teachers were the least motivated. Teachers considered Job security as the topmost work motivator while training and school facilities were not considered as motivators. In addition, it was concluded that significant relationships existed between the predictors and the criterion variables, and that the predictor variables allow a reliable prediction of the criterion variable.

*Recommendations:* The researchers put forward the following recommendations premised on the major findings in this study:

- Retrenchment of teachers should be avoided or at least reduced to the lowest level at all cost to improve job security and work motivation among the teachers.
- Proprietors of secondary schools in Ilorin, Kwara State, Nigeria especially private schools should urgently raise the level of work motivation among the teachers through upward review of monetary incentives, regular promotion, and supervision among other incentives.
- The implementation of the full complement of the Teacher Special Salary Scale by the proprietors of secondary schools could significantly improve the level of work motivation among all the categories of teachers.
- There is a need for restoration and upward review of science teacher allowance, accelerated promotion and automatic sponsorship to professional development programmes for outstanding science teachers. This could uplift the level of work motivation among science teachers.
- The adoption of a teacher-friendly mentor-superior paradigm by supervisors could improve teachers' level of work motivation.
- Proprietors of secondary schools in Ilorin should pay special attention to the provision of school facilities in good quantity and quality, while the school environment should be equipped with very attractive

features and kept tidy always. This recommendation has a high potential to improve teachers' work motivation levels, attract students to school, and stimulate students to learn.

#### **Disclosure Statement:**

There is no financial interest or benefit that has arisen from the direct applications of this research.

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