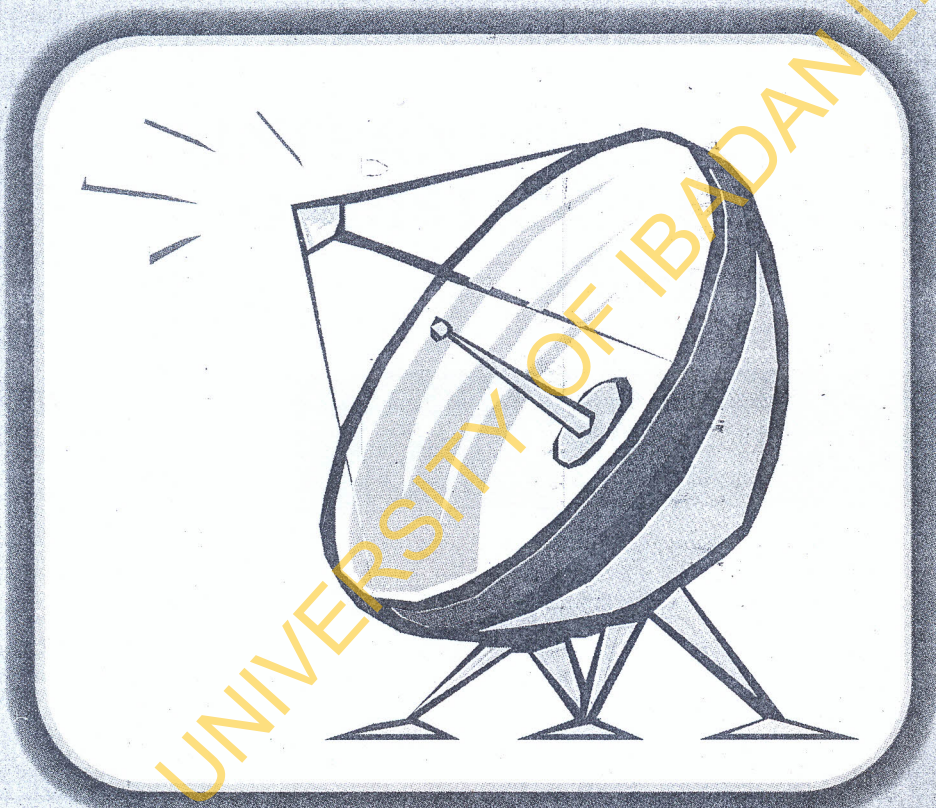
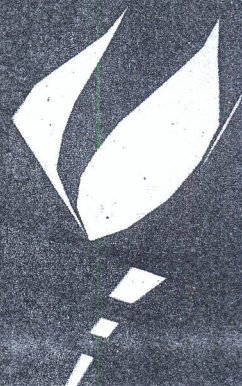


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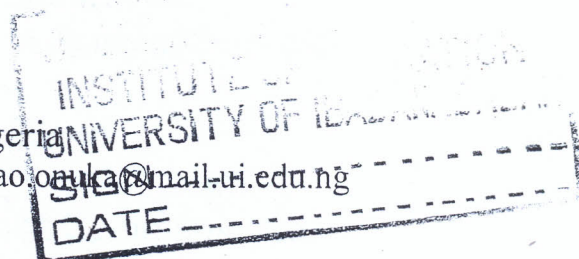
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# DEVELOPMENT AND VALIDATION OF TEACHERS' EVALUATION OF SCHOOL EFFECTIVENESS SCALE

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## ABSTRACT

*The study on school effectiveness is relatively new in Nigeria and there does not seem to be any instrument that can be termed "a school effectiveness scale", therefore, the focus of this study developed and validated a school effectiveness scale which was evaluated by teachers. The name of the scale is Teachers' Evaluation of School Effectiveness Scale (TESES). The scale was administered to secondary school teachers in thirty-six local government areas in Oyo, Ogun and Ekiti States. The samples for this study were selected using multistage random sampling method and 3000 teachers were selected. Four research questions were answered using factor analysis method. To purify the data, items whose factor loadings are less than 0.30 were removed and items with more than 0.40 on 2 or more factors were also removed. The overall instrument possesses high internal consistency and adequate construct validity. A satisfactory seven factors solution was found which reflected teachers' evaluation towards school effectiveness. They are: school administration, school efficiency, students' cognitive domain, inspectorate roles, societal expectations, students' empowerment and teachers' job performance. Teachers' job performance has the highest factor loading. The implications of the findings of the study are discussed.*

**Keywords:** Development, Validation, Teacher Evaluation, School Effectiveness Scale



## **Introduction**

The amount of research and creative thinking about school effectiveness has greatly increased (Fuller, 1986 & Scheerens, 1992). Effective schooling does more than simply laying out the existing knowledge, but presents an original and creativity to that knowledge. There are indications that some school related factors like location, school type and teacher-students ratio influence schools effectiveness. For example, Fuller (1986) investigates the possible influence of school location on school effectiveness. He found that positive relationship exists between the school location and the school effectiveness. Furthermore, schools are making tangible effort to be sure that things are working well in order to achieve maximum results. These include the determination of schools to achieve better results, maximization of actual net learning time and structured teaching. The school principals, vice principals and members of teaching staff hold staff meetings regularly and make concrete decisions on how to make school effective. The discussions include regular attendance in school by the teachers and students, proper record (like diaries, registers and writing of lesson notes) keeping as at when due.

In education, the term “effective” is often associated with the quality of education. Corcoran (1985) gives a broadened meaning to school effectiveness by speaking of the general goodness of a school. School effectiveness can be defined as a turnover or transformation of inputs to outputs. The inputs of a school system include pupils with certain given characteristics, financial and material aids. Output includes pupils' attainment at the end of schooling. The transformation process within a school involves the instructional method, curriculum choices and organisation pre conditions that make it possible for pupils to acquire knowledge. Effectiveness is the extent to which the desired output is achieved. The effectiveness of a school can be measured by the number of students who successfully pass their school leaving certificate examination (Windham 1988). School effectiveness can also be defined as the measure of the number of pupils who successfully pass their school leaving examination at the end of any school year or pass at the international examinations. Ralph and Fenessey (1983) say that school effectiveness should demonstrate consistently high achievement over subject-matter areas (e.g. reading and arithmetic). Bosker, (1991) describes school effectiveness as the consistency of achievement level across classrooms, classes and subjects. Scheerens (1992) says school effectiveness is seen as



both an intriguing area of academic study and an important source of inspiration for improving educational practice. Mortimore, Sammons, Stoll, Lewis and Ecob (1988) state that an effective school is one in which pupils progress further than might be expected from its intake. Mortimore et al (1988) gave three notions on school effectiveness. He says.

- (i) a school can be effective even if its intake is highly disadvantaged;
- \* you can guarantee progress for every pupil even in an effective school.
- \* effectiveness is not the same as efficiency or simple value for money.

American researches in the 1960, concluded that home background factors had far more effect on students' development than anything that schools could do. Later, British researchers in 1990s concluded that effective schools showed some common features:

- High intellectual expectations of pupils
- A professional attitude towards teaching
- The use of rewards rather than punishments
- Emphasis on pupils involvement.

The trend of school effectiveness to date in Nigeria can be said to be at low level in the sense that teachers are not well motivated and this explains why their output is considered low as it has been observed that there was no effective teaching and supervision of the students (Adewale 2002). In most cases, where Parent Teacher Association (PTA) is supposed to promote school effectiveness, alas, reverse is the case because it is these parents that will ask the teachers not to discipline their children or wards. And if a teacher should do so, such a teacher is either toying with his/her job or paving way for public embarrassment from the students or from students' parents. Omolewa (1998) illustrates situations where students were caught harassing teachers for correcting them, while some were caught slapping their teacher, and an ugly situation which is not supposed to be mentioned when a student stripped his mistress naked for punishing him. In a nutshell, the school effectiveness to date is under serious attack because of the following: poor students' study habits, level of unseriousness among the students, teachers' absenteeism from class. Absenteeism of students from school is very rampant and it appears that the school authority does nothing to correct this abnormality, and as a result, it promotes truancy and leads to some deviant behaviours.



It is very possible that specific cultural aspects of school effectiveness exist. There are evidently problems of reliability, validity and biases against the instruments used in Nigeria since they were developed in different cultural backgrounds. A related problem is the assumption that test scores derived from different cultures are comparable, such a level of equivalence is very hard to establish and involves first demonstrating conceptual, construct, operational and item equivalence. Apart from some researchers that worked on effective school, Stoel (1980) under Dutch schooling effectiveness research, the researchers are not aware of any instrument that has been developed and validated in Nigeria for the purpose of teachers' evaluation of school effectiveness. Though it is not common for teachers to be asked to write their perceptions on school effectiveness, the issue of school effectiveness is becoming something of serious concern in view of the perceived falling standards of education in the country. All stakeholders in the school should be able to evaluate the schools' effectiveness systematically against targets negotiated with staff, parents, education authorities and others, hence, there is the need to develop a valid instrument to determine stakeholders' evaluation of school effectiveness. Teachers' evaluation is considered in this study because of the role of teachers in the teaching-learning process. The Nigerian government is aware of the vital role teachers play in the nation's educational system indicates in the policy document on education that no educational system can rise above the quality of its teachers (FRN, 2004). This assertion is further supported by Manson (1981) where he points out that the quality of teachers is an important input in effective learning since quality output demands quality input.

### **Statement of the Problem**

Studies on school effectiveness are relatively new in Nigeria and there does not seem to be any validated instrument that can be termed school effectiveness scale, therefore, this study developed and validated a scale of teachers' evaluation of school effectiveness (TESES).

### **Research Questions**

Four research questions were asked.

1. What are the characteristics of the un-validated Teachers' Evaluation of School Effectiveness Scale (TESES)?
2. What factors are indicative of school effectiveness in the scale?
3. What is the concurrent and construct validity of the teacher evaluation of school effectiveness scale (TESES)?



#### 4. How tenable is the new model?

##### **Methodology**

This is a descriptive research design that employed survey. The population of this study consisted of all the secondary school teachers in the South West Nigeria made up of six states: Lagos, Ogun, Oyo, Osun, Ondo and Ekiti States. Three States were randomly sampled and multistage random sampling technique was used to select 3,000 teachers. Sampling was done on the bases of States; local government areas; schools and teachers. In order to have wide spread representation in the sample, samples were drawn from each of the senatorial districts (each State in Nigeria is divided into three senatorial districts). Sampling of local government areas from the senatorial districts is presented below in the following table.

Table 1 Sample of Local Government Areas (LGAs) from

State	Zone	Number of LGA	LGA selected
Ogun	Ogun Central	7	4
	Ogun East	8	4
	Ogun West	5	3
Oyo	Oyo Central	11	6
	Oyo South	10	5
	Oyo North	12	6
Ekiti	Ekiti Central	5	2
	Ekiti South	6	3
	Ekiti North	5	3
Total			36

The study used 36 LGAs in the three States. Since the number of LGAs in each State is not the same, proportional to sample method was to sample more LGAs from a State with more LGAS (for example, Oyo State) and few from a State with few LGAs (for example, Ekiti State) as shown in Table 1. The actual LGAs were selected using simple random sampling technique. Equal number of schools were sampled from each of the three states because each state is independent of each other and they are treated the same, therefore, forty schools were sampled from each State. Since the distribution of schools in each LGA is not the same, we selected more schools from an LGA that has more schools and few schools from LGA that has few schools (proportion to size). However, the actual schools were selected using random sampling method. A sample of twenty-six teachers from each school was selected (where a school does not have up to 26 teachers, a nearby school with up to 26 teachers was used instead of the originally randomised school). In summary, a total of 26 teachers were selected in each

of the 40 schools in each State. Samples were selected across school location (urban, rural and sub-urban), school types (public and private) and teachers' gender (male and female). The researchers were aware that some respondents may not return their questionnaire and some may fill it in such a way that the information provided may not be useful, hence deliberate attempt was made to increase the sample size by one in each of the schools. That explains why twenty-six teachers were used in each of the schools instead of twenty-five.

### **Instrument**

Three teachers in four secondary schools in Oyo State were asked to write down ten concerns that could make schools effective and one hundred and twenty items were generated from the teachers in the four schools. These items are referred to as un-validated instrument. The un-validated instrument generated from the four schools was given to experts in the field of educational evaluation to give it both face and content *validity*. Many items were deleted probably because they are repetition of some other items, some items were restructured and some were added to give a total of 65 items. The 65 items were trial tested on 50 teachers in Oyo State. The 65-items were reduced to 63 after total item correlations in Cronbach alpha were considered.

### **Data Collection and Analysis**

The instrument was then administered on three thousand, one hundred and twenty teachers in 36 local government areas of the three States in the South West Nigeria. Both descriptive and reliability survey analyses were performed on the items. Items with item total correlation less than 0.3 were dropped in order to increase the homogeneity of the items. This is consistent with the procedure recommended by Nunally and Bernstein (1994). Principal components analysis with orthogonal (Varimax) rotation was used for the analysis. Maximum likelihood solution was used to verify the relationship between the observable variables and latent constructs (confirmatory analysis).

## **Results and Discussion**

### **Research Question 1**

What are the characteristics of the 'crude' Teachers' Evaluation of School Effectiveness Scale (TESES)?



SS/N	Item	Mean	S.D.	Total item	Correlation
1.	Teachers must go to their classes promptly.	4.1585	1.2413	0.5825	
2.	Record keeping must be adequate.	4.1973	1.0624	0.6087	
3.	Use of continuous assessment should be improved.	4.0820	1.099	0.5783	
4.	Teachers and students attendance in the class should be kept.	3.9756	1.1176	0.5780	
5.	Encourage the habit of self-study among the students.	3.9523	1.1174	0.6130	
6.	Organize quizzes and debates on key subjects like English, Mathematics and Sciences.	3.8692	1.0921	0.5930	
7.	Give home work and mark.	3.8803	1.1105	0.6258	
8.	Admission of students should be on merit and not on politics.	4.0089	1.1317	0.6235	
9.	There must not be any act of favoritism.	3.9169	1.1820	0.5710	
10.	The teachers must imbibe the philosophy of self-deference.	3.7118	1.2063	0.5577	
11.	Parents must come for Parents Teachers' Association (P. T. A.) meetings to ensure discipline and makes suggestions.	3.8304	1.1812	0.5760	
12.	Authority seeing to the staff welfare.	3.9523	1.1593	0.6238	
13.	Teacher's in-service training is essential.	3.9379	1.0961	0.6130	
14.	Efficiency of the school prefects.	3.7849	1.1279	0.5993	
15.	Teacher's high moral standard.	4.0521	1.0632	0.6138	
16.	Reward of academic excellence.	3.9501	1.1073	0.6244	
17.	Schools should be fenced round.	3.7805	1.1809	0.5892	
18.	The use of practical equipment must be provided for students	3.9401	1.1678	0.6374	
19.	Schools must be given adequate motivations like having tables, chairs, good and well decorated staff room.	3.9922	1.1622	0.6154	
20.	Teachers must be given adequate motivations life having tables, chairs and good well decorated staff room.	3.9714	1.0924	0.6752	
21.	The late comers must be disciplined.	3.7328	1.1172	0.6182	

22.	People involved in any criminal offence must be punished.	3.4612	1.2341	0.4857
23.	Students should be allowed to Conduct morning devotions.	3.5000	1.2631	0.5130
24.	Organise students' representative council.	3.5443	1.2093	0.5356
25.	Delegation of power from top-down should be allowed.	3.7239	1.1571	0.5990
26.	Use of only qualified teachers should be encouraged.	4.0876	1.1386	0.6409
27.	Interview should be conducted with prospective students.	3.9235	1.1158	0.6406
28.	Running of school activities must involve the principals, vice principals, teaching and non-teaching staff.	4.0122	1.1193	0.6532
29.	Government must implement the educational policies.	4.0377	1.1003	0.6387
30.	The inspectorate division of ministry of education must be aware of their supervisory roles in schools.	3.9523	1.1014	0.5758
31.	Students-teachers ratio must not be too wide.	3.8932	1.1122	0.5514
32.	The teachers must show a high degree of dedication.	3.9778	1.1325	0.6210
33.	There must be more than enough recreation facilities.	3.7506	1.1439	0.5390
34.	The school environment must be tidy.	4.0022	1.0816	0.6167
35.	Students must respond well to notices and school instruction.	3.8769	1.0884	0.6242
36.	Examinations must be set in such a way as to bring the best out of the students and not to defeat them.	4.0322	1.0898	0.6440
37.	Students should have enough confidence in their examinations and they must be ready to accept exam results as final.	3.9978	1.0867	0.6611
38.	Authority to respect the right and privilege of the staff.	4.0222	1.1087	0.6585



39.	Teaching of moral lessons.	4.0011	1.1322	0.6019
40.	Provisions of health facilities for teachers and the students.	3.9497	1.1418	0.6475
41.	Encourage the use of official language in the school.	3.9911	1.1385	0.6063
42.	The staff must be protected from embarrassment form parents.	4.0310	1.1508	0.6620
43.	The staff that experience job hazard must be taken care of by the government.	4.0122	1.0963	0.6347
44.	Home training for students should be emphasised in P. T. A. meetings.	3.8969	1.2028	0.6542
45.	Education must not be made free; some financial bidding must be attached to it.	3.7317	1.2191	0.6011
46.	Students should be intimated with their goals in life by organising series of career talks and seminars	3.8936	1.0649	0.6771
47.	Annual prize giving to the best teachers and students and school	3.0313	1.0732	0.6481
48.	The grading of the students must be effective and comprise all aspects of their life, not class work alone	3.8936	1.1257	0.6418
49.	Parent should stop negotiating results for their wards	3.9922	1.783	0.6153
50.	Organising effective talk for the parents on their roles and how to help their children	3.9446	1.0531	0.6514
51.	Proper implementation of 6-3-3-4 policy, by allowing the average students to cross to technical schools.	3.9601	1.0643	0.6410
52.	Mastery learning should be encouraged	3.8969	1.1006	0.6060
53.	Sex education in the school is necessary	3.7938	1.1481	0.5632
54.	Updating students record daily for proper counseling	3.9390	1.1237	0.6064
55.	Making the school curriculum more relevant and easy to cover	4.0100	1.0790	0.6637
56.	Check cultism, waywardness and other vices			

	in schools.	4.0831	1.0972	0.6229
57.	Dissemination of information on the current issues affecting the school, and the system of education at large.	3.9379	1.0622	0.6539
58.	Adequate planning of human and non-human resources.	3.9013	1.0970	0.6280
59.	Implementing and follow-up of the targeted objectives set for a stated period.	4.0665	1.0691	0.6161
60.	Good offices for teachers provided by the government.	4.0665	1.0556	0.6223
61.	Provision of school buses for easy transportation.	3.8647	1.1663	0.5748
62.	Students should be ready to learn because Eaching cannot be effective when they are not Ready to learn.	4.1519	1.0398	0.5977
63.	Valedictory service in order to appreciate			

All the 63 items have total item correlation greater than 0.3, the 63 items could be considered to be good and can be used for the factor analysis.

## **Research Question 2**

What factors are indicative of school effectiveness?

This research question was answered by subjecting all the items into the exploratory factor analysis.

## **Exploratory Factor Analysis**

In order to assess the structure of teachers' evaluation of school effectiveness scale (TESES), all the 65 items were factor analyzed, by means of principal components analysis with orthogonal (Varimax) rotation. The initial factor solution for the teachers' evaluation of school effectiveness using the 2 rotations resulted in 7 factors with Eigen values grater than 1. The 7 factors accounted for 86.7% of the variance. This is presented in Table 2. In order to select items for the final scale, the pattern of factor loadings was examined. Items with factor loading less than 0.4 were discarded. Thus the number of items comes to 60 items. Moreover, for



further purification of the list, items with factor loadings of 0.40 or more in two factors were eliminated from the list. These reduced the total item from 60 to 58 items with 7 factors having eigen values greater than 1.

Table 3 Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
Record keeping must be adequate.	.762						
Use of C. A. should be highly treated.	.715						
Teachers must go their classes promptly.	.701						
Teachers and students attendance in the class should be kept.	.692						
Encourage the habit of self-study among the students.	.649						
Organize literary and debate on key subjects like English, Mathematics and Sciences.	.613						
Give homework and mark.	.542						
Admission of students should be on merit and not on politics.	.528						
There must not be any act of favoritism.	.485						
Mastery learning should be encouraged	.673						
Proper implementation of 6-3-3-4 policy by allowing the average students to cross to technical school	.650						
Organizing effective talk for the parents on their roles and how to help their children	.628						
Up dating students record daily for proper counseling	.575						
Parent should stop negotiating results for their wards	.545						
The grading of the students must be effective and comprises of all aspects of their life, not class work alone	.541						
Annual prize giving to the best teachers and students and school	.539						
Education must not be made free; some financial bidding must be attached to it.	.520						
Students should be intimated with their goals in life by organizing series of career talks and seminars	.507						
Authority seeing to the staff welfare.	.678						
Teachers in service training is essential.	.643						
Efficiency of the school prefects.	.606						
Reward of academic excellence.	.566						
Teachers high moral standard.	.554						
The use of practical equipment must be provided for students.	.526						

Parents must come for P.T.A. meetings to ensure discipline and makes suggestions.	.499
Schools should be fenced round.	.469
Schools must be given adequate motivations like having tables, chairs, good and well-decorated staff room.	.449
The teachers must imbibe the philosophy of self deference.	.437
The inspectorate division of ministry of education must	.672
Students-teachers ratio must not be too wide.	.625
Running of school activities must involve the principals, vice principals, teaching and non-teaching staff.	.575
Interview should be conducted of prospective students.	.573
Use qualified teachers only should be encouraged.	.550
There must be more than enough recreation facilities.	.539
The school environment must be tidy.	.531
Students must respond well to handbills and school instruction.	.455
Provisions of health facilities for teachers and the students.	.655
The staff must be protected from embarrassment from parents.	.642
Teaching of moral lessons.	.632
Encourage the use of official language in the school.	.604
The staff that experience job hazard must be taken care of by the government.	.586
Examinations must be set in such a way as to bring the best out of the students and not to defeat them.	.516
Students should have enough confidence in their examinations and they must be ready to accept exam results as finals.	.483
Good offices for teachers by the government.	.644
Adequate planning of human and non human resources.	.639
Implementing and follow-up of the targeted objectives set for a stated period.	.630
Authority to respect the right and privilege of the staff.	.623
Provision of school bus for easy transportation.	.611
Valedictory service in order to appreciate good gestures.	.590
Students should be ready to learn because teaching cannot be effective when they are not ready to learn.	.587
Dissemination of information on the current issues affecting the school system of education at large.	.490
Organize students representative council.	.765
Students should be allowed to conduct morning devotions.	.736
Involved people in any criminal offence.	.672
Delegation of power from up down should be allowed.	.652
The late comers must be disciplined.	.602
Teachers must be given adequate motivations like having tables, chairs and good well decorated staff room.	.421



Factor 1 reflected the *school administration* and included nine items (e.g. “Teachers must go to their classes promptly “Record keeping must be adequate”). Factor 2 reflected relationship of *school activities* and included ten items (e.g. “mastery learning should be encouraged”, “sex education in the school is necessary”). Factor 3 reflected *students' achievement in cognitive domain* and included ten items (e.g. “The use of practical equipment must be provided for students”, schools must have good and well equipped library). Factor 4 reflected the *inspectorate roles* and included nine items (e.g. “the Inspectorate division of ministry of education must be aware of their supervisory roles in schools”). Factor 5 reflected *societal expectations* and included seven items (e.g. “Teaching of moral lessons “Home training for students should be emphasised”). Factor 6 reflected *students empowerment* and included seven items (e.g. “The school prefects should be allowed to conduct morning devotion”, “Student should be ready to learn”). Factors 7 reflected *teacher's job performance* and included six items (e.g. “Teacher must be given adequate motivations” Teacher's in service training is essential”).

### Research Question 3

What is the concurrent and construct validity of the teacher evaluation of school effectiveness scale (TESSSES)?

The concurrent and construct validity of the teacher evaluation of school effectiveness scale (TESSSES) is presented in Table 3.

Table 3 Concurrent and Construct Validity of the Teacher Evaluation of School Effectiveness Scale (TESSSES)

Factor	Factor Loading for the seven Dimension of Teachers perception						
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
1 School Administration	.9086						
2 School activities	.596	.9070					
3 Students cognitive domain	.765	.669	.8933				
4 Inspectorate Roles	.593	.687	.663	.8912			
5 Societal Expectations	.595	.719	.653	.731	.8875		
6 Students Empowerment	.013 <sup>ns</sup>	.032 <sup>ns</sup>	.631	.011 <sup>ns</sup>	.025 <sup>ns</sup>	.8804	
7 Teachers job Performance	.525	.582	.655	.663	.531	.573	.8670

Ns = not significant ( $P > 0.05$ ).

The final sets of items derived from factor analysis were tested for their reliability using item-total correlation to item analyse them. Items for each scale were analysed separately. The internal consistencies were:

Factor 1 = 0.9086 (e.g. School administration)

Factor 2 = 0.9070 (i.e. School activities)

Factor 3 = 0.8933 (i.e. Students' cognitive domain)

Factor 4 = 0.8912 (i.e. Inspectorate roles)

Factor 5 = 0.8875 (i.e. Societal expectation)

Factor 6 = 0.8804 (i.e. Students' empowerment)

Factor 7 = 0.8670 (i.e. Teachers' job performance)

The overall internal consistency of TESES is 0.9086. In this study, we examined the construct validity of the TESES by determining the correlates of the seven factors on each other. The Pearson Product Moment Correlation was used on the seven factors and none of the seven factors correlate up to 1.00 at the 2-tailed significant level. For example, factor 1 which is school administration correlates with other factors with correlation coefficients of 0.576, 0.765, 0.593, 0.595, 0.013 and 0.525 respectively and at the 2-tailed significant level of .001 at each level. However, school administration does not correlate significantly with student's empowerment. The teachers' evaluation of school effectiveness has a greater relationship with the factors affecting school development. The correlation is significant at the 0.01 level (2 tailed). This is the underlying factors of teachers evaluation scale were found to be significantly related to school effectiveness; providing statistical support for the validation of the scale.

#### **Research Question 4**

How tenable is the new model?

This research question is answered using the confirmatory factor analysis approach.

#### **Confirmatory Factor Analysis**

In order to verify the factor structure of the teacher's evaluation of school effectiveness first obtained from the exploratory factor analysis, a confirmatory factor analysis was conducted. Maximum Likelihood solution was used to verify the relationship between the observable



variables and latent constructs. The chi-square ( $X^2$ ) statistic was significant for this model indicating an inadequate fit of the confirmatory model to the data  $X^2$  ( $df= 1319, N = 1000$ ) = 3380.669;  $P < 0.05 = 0.00$ .]

### **Goodness of-fit-test**

Chi Square	Df	Sig.
3380.639	1319	.000

With the table above the scale is reliable with significant level of .0000. From the teachers Evaluation Scale, we obtained maximum likelihood solutions by using chi-square to find the relationship between the seven factors. The confirmatory factor model accounted for about 57% of the variation for the seven factors in teachers' evaluation scale, indicating reliable factors. The internal consistencies of actors 1 through 7 were 0.9086, 0.9070, 0.8933, 0.8912, 0.8875, 0.8804 and 0.8690 respectively. Hang and Michael (2000) pointed out that a statically significant value of  $X^2$  index indicates that the entries for the proposed model deviate from those obtained. Thus, the hypothesised model should be considered untenable. However, it is important to note here that one of the limitations associated with the use of  $X^2$  value is its dependency on sample size. A large sample size (like in this study) would be expected to lead to a rejection of a model. Since the discrepancies between the model and the data were accounted for by the large sample size, we cannot conclude here that the hypothesised model is untenable.

### **Discussion**

The relationship between the seven factors show that they are highly significant at  $\alpha = 0.05$  (95%). The relationship /correlation between school administration and school efficiency is 0.596, the correlation indicated that if the school administration is effective especially the executive officer (principal) it is likely to increase school efficiency and this can be realised in the students performance especially in external examinations; for example parents love to take their children or wards to private secondary schools because of good performance of those school in the West African examination certificate results. In another way the school efficiency correlates with students' cognitive.

The correlation coefficient of inspectorate roles and societal expectations is 0.731, this is highly significant and it shows that the inspectorates' roles



constitute a means of encouragement and motivation to teachers and thereby the society is satisfied. The inspectors visit schools to correct anomalies on the path of teachers and student and hence write report on their observations. They also make recommendations to the school stakeholders. If the inspectorate roles are really effective and has positive impact on all the remaining six factors it will increase the societal expectation. And the society will have confidence in their government and even make the people of the society to be law abiding. This agrees with the work of Edmonds (1979) that says the people in the society take their children to the private school for proper monitoring because of the efficiency observable in private school. In addition, teachers' job performance is highly significant at 0.573. It correlates with the remaining six factors. And these teachers' job performance stands at a high advantage on schools for effectiveness. The high degree of teachers' job performance will dictate the tone of schools on effectiveness.

The government has a lot to do on this factor (teachers' job performance). The necessary things needed by teachers to perform well are: prompt payment of salary, promotion as at when due; provision of incentive like leave bonus, housing loan, and car loan. All the seven factors are interrelated and they are highly significant at  $\alpha = 0.05$ .

The study also revealed that a correlation exist between each of the factors although, they are not as strong as the values on the diagonal in Table 3 and this agrees with the work of Vanmarwijk-kooi-von (1998) who found out that there are relationships between his seven factors on college students' views of male and female college teachers respectively. It is interesting to note the precision in degree to which teacher's evaluation on the school effectiveness is shown on the seven factors that consisted the TESES the greatest area of interest is in the area of interpersonal relationships i.e. under the school administration. The teachers believe in the teachers' welfare and the staff of office to perform excellently well. One possible reason for this is that teachers believed that their relationships with other people outside the job reflect poorly on their social image, because society's attitudes towards teacher's personality is negative in recent years.

The TESES potentially has a wide range of applications. Numerous programmes aimed at developing the school effectiveness, but they may have a high failure rate if the process is not well catered for and emphasis only on input and output. The link between attitude and behaviours has



been well established (Fischer, 1980). Finally, the TESES could give room for proper monitoring on school effectiveness.

### **Conclusion and Recommendations**

The researchers are not aware of any study on school effectiveness in Nigeria because the study on school effectiveness is relatively new, hence, there is no instrument we can be termed school effectiveness scale. That explains why the focus of this study is on how to develop and validate a scale of teachers' evaluation of school effectiveness (TESES). Twelve teachers of secondary schools were asked to write down what they considered in making school effective and one hundred and twenty one items which were termed as "crude" items were generated. Both face and content validity of the instrument was obtained. This exercise led to generation of an instrument we can term "semi-good" and the items were 65 in number. Cronbach Alpha was used to establish the total item correlation and items with less than 0.3 item total correlation were dropped in order to increase the homogeneity of the items. The rest items were subjected to factor analysis which yielded seven distinct factors underlying the teachers' evaluation of school effectiveness, these factors are: School Administration, School efficiency, Students' cognitive domain, Inspectorate Roles, Societal Expectations, Students' Empowerment and Teachers job Performance. The correlation matrix of the seven factors shows that none of the seven factors correlate up to 1.00 at the 2-tailed significant level and none of the correlation coefficients in the matrix is stronger than the values in the diagonal (the internal consistency of each of the factors). This implies that each of the factors stands out and we cannot say that any two factors are measuring the same thing. This scale can now be used by teachers in the Nigeria context to evaluate the extent of school effectiveness in each of the dimension considered.

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