

Full Length Research Paper

Class Size Challenges: A Barrier to the Quality of Teachers' Work

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The study examined the influence of class size pressure on the quality of work performed by secondary school teachers in Cross River State, Nigeria. The design adopted for the study was Ex-post Facto. One research question and one hypothesis were formulated to guide the study. Two sets of researchers developed instruments named class size pressure questionnaire (C.S.P.Q) and Teachers' Work Quality Questionnaire (T.W.Q.Q) were responded to by teachers and students respectively after being validated. The C. S. P. Q with items on class size which were categorized into four Viz: below 30, 31-40, 41-50 and 51 and above were administered to 500 teachers while the T.W.Q.Q consisting of 18 items were responded to by 2000 students randomly selected through stratified random sampling technique. The data were analyzed using one way analysis of variance (ANOVA). The major finding of the study revealed a significant influence of class size on teachers' work quality. Based on the findings it was recommended that government should build more classrooms and employ more qualified teachers so as to reduce students' class population and reduce teachers' work load. In this way, teachers' work quality will be enhanced.

Keywords: Teachers, Secondary School, Pressure, Class size, Cross river state, Nigeria.

INTRODUCTION

The Nigerian education system has continuously experienced an upward trend in school enrolment at all levels since after the civil war in 1970. This has in turn impacted on the class size in terms of the population of individual classrooms.

Inflated class size is very critical to teaching-learning-

process as teachers sometimes have real difficulty in dealing with students on individual bases. We find a scenario in our schools where a teacher stands right in front of the classroom throughout the lesson period without moving around from time to time to supervise what the students are doing because there is hardly a space between one row of lockers and another.

The National Policy on Education stipulated that a class size in secondary schools should have a ratio of 1:40. Regrettably, the classes are so large that teachers

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cannot recognize the students by names and sometimes by their faces. This situation makes the teachers to develop the feeling of inertia to interact with the students on individual bases so as to meet their academic, psychological, guidance or counseling needs where necessary.

Class size has also impinged on the quality of assessment, evaluation and feed back system carried out by teachers in our secondary schools. A number of reports attest to this fact. Wosyanju (2005) maintained that large classes pose some teaching challenges such as delayed feed-back provided to students, no high quality individual feedback resulting in inefficiency and poor quality of students, reduction in teaching, less assignment so as to reduce marking, avoiding assessment which encourages shallow learning and students become faces instead of people. As a result of the challenges posed by assessment of large classes, Wosyanju (2005) observes that teachers adopt the strategies of concentrating on "true" or "false" answers or objective tests to ease marking. This reduces writing or creative skills in the students.

Class size problem is like a vicious cycle in Cross River State public secondary schools. It leads to teachers' poor work quality, which results in students poor learning outcomes and finally culminates in turning out half-baked products into the tertiary institutions and the labour markets respectively. According to Asiyai and Ajudeonu (2010) the academic performance of pupils depends on the effectiveness of instruction provided by teachers. This they said can only take place in a conducive classroom with a manageable size. This supports the U.S Department of Education Publication (1999) which stated that teachers who were assigned to smaller classes reported that the classroom atmosphere was better, students could receive more individualized attention and that teachers had more flexibility to use different instructional approaches. Researches from project STAR (student/teacher achievement ratio) also showed that students in smaller classes with fewer than 18 students did better when compared with students in larger classes (West & Woessmann, 2003).

Goodrum, Hackling and Rennie (2001) in their studies revealed a correlation between class size and the quality of teaching and learning among schools in Australia. In Nigeria, Osim (2009) found that class size as one of the sub-variables of school quality exerted significant influence on teachers' task performance in terms of teaching, assessment of students' academic performance and classroom management. Teaching large classes according to Wosyanju (2005) affects the morale motivation and self-esteem of teachers. The author further reported that many teachers feel that when teaching large classes, they spend more time in

organizing class activities and not enough time on meeting student need individually.

Classroom management implies controlling the classroom environment to achieve, meaningful learning (Akabue 1999). Ihebereme (2010) opined that classroom management refers to the methods and strategies a teacher uses to maintain a conducive environment for pedagogical delivery. But observation shows the teachers can hardly manage their classrooms well so as to create a conducive teaching-learning environment because of the pressure of large classes. The students distract themselves as well as the teachers thereby affecting the teaching learning process negatively. In a study conducted by Osim (2011), it was concluded that teachers task performance will improve if there are sufficient qualified teachers to match the overpopulated schools in Cross River State. This invariably suggests that teachers in this state cannot perform their work well because of the pressure of large classes. The issue discussed in this work has prompted the researchers to investigate the influence of class size on teachers' work quality.

Statement of the problem

Observation reveals that in recent times, there has been astronomical rise in class size due to increase in enrolment of students in public secondary schools in Cross River State. Some schools have as many as eighty (80), hundred (100) or above 100 students per class as against the teacher-student ratio of 1:40 recommended by the National Policy on Education (FGN 2004). This situation has had multiple negative effects on teaching and learning as well as students academic outcomes. This is evidenced in the failure rates recorded by students in external exams like W.A.E.C in a core subjects like English Language between 2004 and 2006 (Osim 2009). Apart from this, students no longer have confidence in writing exams on their own without examination malpractice (Mgbekem, 2004). This also is consequent upon the fact that large class sizes do no encourage conducive teaching and learning environment. Hence, the need to investigate the influence of class size on teachers' work quality in Cross River State.

Purpose of the study

The study focused on the pressure of class size on quality of work performance by secondary school teachers in Cross River State. Specifically, the study was poised to determine the influence of class size on teachers' work quality.

Research Questions

To what extent does class size influence teachers' work quality?

Hypothesis

There is no significant influence of class size on teachers' work quality.

METHODOLOGY

The study adopted the Ex-post Facto design. The study population comprised of all the secondary school teachers and senior secondary 2 (SS11) Students in Cross River State public secondary schools. Five hundred (500) teachers and 2000 students respectively were randomly selected through stratified random sampling technique out of 3,348 teachers and 14,000 SS11 students from the three educational zones of the state.

The instruments for data collection were self developed by the researchers and named class size pressure questionnaire (C.S.P.Q) and Teachers' Work Quality Questionnaire (T.W.Q.Q). The teachers responded to the CSPQ which was made up of demographic data and information on class size, it was measured in terms of number of students in class such as below 30,31-40,41-50 and 51 and above.

T.W.Q.Q was responded to the students. Section A provided demographic data while B consisted of 18 items on four-point Likert type scale which measured teachers' work quality in terms of teaching, assessment of students' academic performance and classroom control. Each was measured by six items. After ensuring face/validation by experts in the profession, a reliability estimate was carried out using test-retest reliability estimate/method. The reliability coefficients for the sub-scales ranged from 0.61 to 0.68. Data analysis was done using ANOVA.

RESULTS

Results of analyses presented in 1 one shows that the calculated F-ratio for all the sub-variables of teachers' work quality were each greater than the critical. F-ratio of 3.04 at .05 level of significance with 3 and 496 degrees of freedom. These results implied that there was a

significant influence class size on teachers' work quality in terms of all sub-variables considered.

Since the results were significant, a Fisher's protected t-test (Post-hoc) analysis was carried out to find out the mean pair difference(s) that were responsible for the significance. Results of the post-hoc analyses are presented in table 2.

(a) All means are along the principal diagonals

(b) Difference among means are above the principal diagonals

(c) t-values are below the principal diagonals Result of the Fisher' protected t-test analysis presented in table 2 show that for all variables of teachers work quality there was a significant means pair different among the following different levels of class size; very high/ low, very high/moderate, high/low, high/moderate and very high/high.

The implication is that-teachers whose schools had low class sizes performed better than their counterparts whose schools had very high class sizes as depicted by the differences in means. That is, the higher the class size, the lower the teachers' work quality.

DISCUSSION OF FINDINGS

The finding of this hypothesis as presented in table 1 showed that the calculated F-ratio for all the sub-variables of teachers' work quality were each greater than the critical F-ratio of 3.04 at .05 level of significance with 3 and 476 degree of freedom. This result indicated that there was a significant influence of class size on all sub-variables of teachers' work quality. This resulted in Fisher's protected t-test being carried out. A cursory look at table 1 revealed that teachers' whose school had low class sizes performed better than their counterparts whose school had very high class sizes as depicted by the differences in means. And on the other hand, the higher the class size the lower the teachers' work quality. This findings is in consonance with the findings of project STAR (Students/teacher achievement ratio) which revealed that students in smaller classes (West and Woessman, 2003)with fewer than 18 students did better when compared with students in larger classes. This result further agrees with the findings of Goodrum, Hackling and Rennie (2001) which showed a correlation between class size and the quality of teaching and learning among schools in Australia. Again, the present study corroborates with Asiyai's and Ajudeonu's (2010) report which concluded that large class size has a lot of negative effects on teaching and learning quality in public secondary schools in Delta State, Nigeria.

Table 1: One-way analysis of variance of the influence of class size on teachers' quality.

Teachers' work quality	Class size	N	X	SD
Teaching task	(1) Low	35	17.68	1.40
	(2) Moderate	65	17.32	1.45
	(3) High	287	16.60	1.38
	(4) Very high	113	16.56	2.67
	Total	500	16.88	2.56
Assessment of students' academic performance	(1) Low	35	17.40	2.37
	(2) Moderate	65	16.99	1.77
	(3) High	287	16.11	2.62
	(4) Very high	113	15.55	3.15
	Total	500	16.08	2.85
Classroom management	(1) Low	35	17.20	2.17
	(2) Moderate	65	16.75	2.93
	(3) High	287	16.52	2.64
	(4) Very high	113	15.60	2.06
	Total	500	16.50	2.63

Teachers work Quality	Source - of variance	SS	df	MS	F
Teaching task	Between groups	95.610	3	31.870	6.426*
	Within groups	2459.948	496	4.960	
	Total	2555.558	499		
Assessment of students' Academic Performance	Between groups	235.303	3	78.434	10.182*
	Within groups	3820.655	496	7.703	
	Total	4055.958	499		
Classroom management	Between groups	77.133	3	25.711	3.773*
	Within groups	3379.865	496	6.814	
	Total	3456.998	499		

*Significant at .05; critical F = 3.04

Table 2. Fisher's protected t-test analysis of the influence of class size on teachers' work quality.

Variances	Class size	N	1	2	3	4
Teaching task	(1) Low	35	17.68a	0.36b	1.08	1.12
	(2) Moderate	65	0.78c	17.32	0.72	0.76
	(3) High	287	2.71*	2.35*	16.60	0.04
	(4) Very high	113	2.61*	2.20*	0.16	16.56
				(MSW=4.960)		
Assessment of Students' Academic Performance	(1) Low	35	17.40a	0.41b	1.29	1.85
	(2) Moderate	65	0.71c	16.99	0.88	1.44
	(3) High	287	2.60*	2.30*	16.11	0.56
	(4) Very high	113	3.47*	3.35*	1.84	15.55
				(MSW=7.703)		
Classroom Management	(1) Low	35	17.20a	0.45b	0.68	1.60
	(2) Moderate	65	0.83c	16.75	0.23	1.15
	(3) High	287	1.45	0.64	16.52	0.92
	(4) Very high	113	3.19*	2.84*	3.22*	15.60
				(MSW=6.814)		

*Significant at .05

CONCLUSION

Based on the results of the finding, it is quite obvious that large class size influences teachers' work quality negatively and consequently poor students' academic performance; while small class size influences teachers' work performance positively and improves students' academic achievement.

The following recommendations were made
Government should build new classrooms to distribute the students according to the recommended population of 40 students per class. More qualified teachers should be employed so as to avoid the problem of overloading the teachers with work.

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