PHYSICAL WORKING CONDITIONS AS DETERMINANTS OF PRODUCTIVITY AMONG SECONDARY SCHOOL TEACHERS IN OGUN STATE, NIGERIA

Kayode Olu. IJADUOLA, F. Abisoye ADENAIKE, Rachael Oluwakemi AGBAJEOLA, Victor Babatunde AJAYI

Educational Management, Tai Solarin University of Education, Ijagun, Nigeria. Tai Solarin College of Education, Education, Omu-Ijebu. Ogun State, Nigeria

ABSTRACT
This paper analysed the influence that physical working condition exerts on secondary school teachers’ productivity in Ogun State, Nigeria. The study adopted the descriptive research design. A total of 1,600 teachers randomly selected from secondary schools in the four geo-political zones of Ogun State constituted the sample. A questionnaire tagged “Physical Working Condition and Teachers Productivity (PWCTP)” with the reliability co-efficient of $r=0.83$ was used to collect data. The five null hypotheses proposed and tested in the study were analysed with chi-square statistics at 0.05 error margins. Findings of the study were discussed while the implications of the study to educational planning were also highlighted. It was recommended among others that employers of teachers should at all timesendeavour as much as possible to provide funds for adequate and befitting physical working environment so as to secure the latter’s cooperation and increased productivity.

KEYWORDS: Physical condition, environment, school planning, human factor, productivity.

INTRODUCTION
Physical conditions refer to those things that must be available in the working place for effective office work. In the context of the school system, they are those things that enable the teacher to be able to teach effectively and contribute to the achievement of the school goals and objectives without fatigue and distraction (Dan, 2000; Dejimi, 2003; Fijabi, 2004; Unuoha, 2005; Oladewa, 2006, Ijaduola, 2007, 2008a). As opined by Felix (2004), a good school organisation must have appropriate physical conditions necessary for effective work.

According to Subair and Awolere (2006), there should be maximum use of certain physical conditions such as lighting, ventilation, good building constructions, sufficient windows, doors, vents and fans to cool the heat during hot season. All these improve work and health of both the teachers and the learners. Adams (2004) submitted that a quiet, cool, clean and beautiful environment makes the teacher happy and enhances his or her performance and productivity. Wilson (2003), Okunuga (2005) and Ijaduola (2008c) cautioned that with poor physical working condition, there are usually mental fatigue, truancy, frustration, discomfort, and poor health; all those consequently reduce teachers’ productivity.

Banmeke (2006) also lends credence to the fact that lack of adequate and improper physical conditions in the teachers’ offices as well as in the classrooms dampens teacher’s morale. Such situation engenders job dissatisfaction, causes truancy, lateness, absenteeism, indifference towards organizational goals, frustration. The consequence is low teacher’ productivity. Taking a cue from the foregoing, Joel and Shaw (2001), Omidina (2003), Fatoki (2005), Colins (2006) and Ijaduola (2008b) agreed that since staff spend almost half of their lives at work, it is important to provide them with pleasant and comfortable working conditions.

Taiwo (2004) and Ojekunle (2006) posited that school environments are dynamic; but the most dynamic factors in school is the human factor. Workers today are a lot more educated than before and are more likely to raise questions about their environment of work. That is perhaps why Ijaduola (2006, 2008d) noted that many employers not only meet this elementary condition but recognize that good working conditions improve productivity.

As observed by Silver (1998), Kukoyi (2002) and Ogundalu (2005), school planning strictly involves consideration of the present volume of school and its trend in the future so that both long and short term
expansion and depression in school business can be accommodated as the need arises. Consequently, in planning an office of a school including classrooms, Badejo (2003) opines that it is possible to choose a location that represents the best possible site for the purpose of the business concerned. To this end, Anthony (2007) recommended that the layout of school building should not be close to the post office, bank, highway or industry; because presence of these facilities adversely affects the teachers in the course of discharging their duties.

Cleanliness is another aspect of the physical condition that must be properly taken care of. A dirty school is unpleasant to teachers; it affects their emotions and people react to their surroundings (Aladesanmi and Olaoye 2000; Borisade, 2004; Osumah, 2004; and Eletu, 2006). Mills (2003) explains that a clean school office contributes not only to the health and general well being of the workers but also to the neatness and accuracy of work. A teacher working in a dirty class will tend to become untidy and careless in his work. Other prerequisites of proper physical working conditions include adequate floor covering, adequate ventilation, rest rooms, recreation facilities, canteen services, health, safety and fire precaution, good furniture and pleasant decoration of the school.

Productivity as defined by the economists is the ratio of output of goods and services to the input-production ratio (Babalola, 2003). The input factors include labour, land technology, tangible output, finance, and energy and management expertise. Similarly, the concept of productivity involves the interplay of various elements in the workspace, while the output may be related to miscellaneous resources or input (labour, materials, capital) much of the separate productivity ratio is influenced by an array of relevant factors. These influencing factors include the availability and quality of materials, the rate of capacity utilization and the scale of operation, the nature of capital, equipment, the attitude and skill level of workforce as well as the motivation and effectiveness of the management. According to Telford and Manson (2005), the template by which these elements interact has an impact on the resulting productivity as measured by any of several feasible rations.

Similarly, Ejiogu (2005), Ijaduola and Agbajeola (2009) contended that in the educational system, productivity refers to the ratio between the total educational output and the resource inputs utilized in the production process. There is indication that teachers are no longer efficient and productive. In other words, teachers’ output in terms of academic performance of students has been low.

Objectives of the study
The objectives of this study include the following:
(i) To ascertain if any relationship exists between physical working condition (PWC) and teachers’ productivity.
(ii) To find out whether gender difference has anything to do with PWC and productivity.
(iii) To examine the impact of age on PWC and productivity.
(iv) To examine the difference between private and public school teachers’ PWC and productivity.
(v) To investigate the of school location on PWC and teachers’ productivity.

Hypotheses
Ho1: There is no significant relationship between physical working conditions (PWC) and secondary school teachers’ productivity.
Ho2: There is no significant relationship between PWC and productivity of male and female teachers.
Ho3: There is no significant relationship between PWC and productivity of young and old teachers.
Ho4: There is no significant relationship between PWC and productivity of private and public schools teachers.
Ho5: There is no significant relationship between PWC and productivity of rural and urban schools teachers.

METHODS
The descriptive research design was utilized for this study. The sample comprised 1,600 teachers randomly selected teachers across secondary schools in the four geo-political zones of Ogun State. 739 male and 861 female teachers, 908 young (i.e. below 40 years) and 692 old (i.e. 40+) teachers, 517 private and 1083 public schools teachers, 706 rural and 894 urban schools teachers.
The instrument used for data collection is called: Physical Working Condition and Teachers’ Productivity Questionnaire (PWCTPQ). This questionnaire has been used in three other relevant studies by researchers (Onwuka, 2002; Sambo, 2003; Okunuga, 2005). Yet, the instrument was subjected to construct validation by two research colleagues while a reliability coefficient (r=0.83) was obtained following the test-retest technique. Chi-square statistic was used to analyse the five null hypotheses developed for the study at 0.05 level of significance. The research instrument was administered to the respondents personally by the researchers.

RESULTS

**Ho1:** There is no significant relationship between physical working conditions and secondary school teachers’ productivity.

| Variation                  | Df | X² observed | X² critical | P   | Remark |
|----------------------------|----|-------------|-------------|-----|--------|
| Physical working condition | 2  | 9.03        | 5.67        | 0.05| S      |
| Teachers’ productivity     |    |             |             |     |        |

In Table 1, analysis of the physical working conditions and secondary school teachers’ productivity indicated a significant relationship. This is because the $X^2$ observed (9.03) is greater than the critical $X^2$ (5.67) at df=2 and P< 0.05. Consequently, there is a significant relationship between physical working conditions (PWC) and secondary school teachers’ productivity.

**Ho2:** There is no significant relationship between PWC and productivity of male and female teachers.

| Variation                  | Df | X² observed | X² critical | P   | Remark |
|----------------------------|----|-------------|-------------|-----|--------|
| Male teachers              | 2  | 2.12        | 2.36        | 0.05| NS     |
| Female teachers            |    |             |             |     |        |

As shown in the analysis under Table 2, a $X^2$ value of 2.12 was obtained. This value is less than the table value of 2.36 at 0.05 level of significance and df=2. This, therefore, implies that there is no significant relationship between the variables being considered. Hence the null hypothesis stated earlier is upheld.

**Ho3:** There is no significant relationship between PWC and productivity of young and old teachers

| Variation                  | Df | X² observed | X² critical | P   | Remark |
|----------------------------|----|-------------|-------------|-----|--------|
| Young teachers             | 2  | 2.32        | 9.46        | 0.05| S      |
| Old teachers               |    |             |             |     |        |

From the analysis displayed in Table 3, non-significant relationship was established between PWC and productivity of young and old teachers. This is predicated on the fact that the obtained $X^2$ value 2.32 is less than the $X^2$ critical value of 9.46 at 0.05 level of significance and 2 degree of freedom.

**Ho4:** There is no significant relationship between PWC and productivity of private and public school teachers.
Table 4: Chi-square summary of test of the relationship between PWC and productivity of private and public schools teachers.

| Variation                | df | X² observed | X² critical | P    | Remark |
|--------------------------|----|-------------|-------------|------|--------|
| Public schools teachers  | 2  | 3.51        | 4.73        | 0.05 | NS     |
| Private schools teachers |    |             |             |      |        |

Analysis in Table 4 indicated an observed $X^2$ value of 3.51 and a critical $X^2$ value of 4.73. Since the value of $X^2$ is less than a critical value of $X^2$ at 0.05 level of significance and at 2 degree of freedom, there is no significant relationship between PWC and productivity of private and public school teachers.

H₀: There is no significant relationship between PWC and productivity of rural and urban schools teachers.

Table 5: Chi-square summary of test of the relationship between PWC and productivity of rural and urban schools teachers.

| Variation             | df | X² observed | X² critical | P    | Remark |
|-----------------------|----|-------------|-------------|------|--------|
| Rural schools teachers| 2  | 5.52        | 5.98        | 0.05 | S      |
| Urban schools teachers|    |             |             |      |        |

Analysis of school location variable did not show a significant relationship between PWC and productivity of rural and urban schools teachers with $X^2$ observed = 5.52 and $X^2$ critical = 5.98 at df=2 and P< 0.05. This result indicated that chi observed is less than chi critical, hence the $X^2$ observed is not significant and the hypothesis not rejected. As a result there is no significant relationship between PWC and productivity of rural and urban schools teachers.

DISCUSSION OF FINDINGS

In addition to the analysis of data, a number of issues came out from the interview held with the respondents. In the first place, availability of adequate physical working condition leads to job satisfaction and subsequent increase in productivity as there are those things that must be available in the working place for effective office work. However, shabby and unconducive classrooms help to contribute to the high rate of malingering and truancy among teachers. This submission is congruous with Banmeke’s (2006) study which lent credence to the fact that lack of adequate and improper physical condition in the teachers’ office as well as in the classroom dampens teachers’ morale and engenders job dissatisfaction in all ramifications.

In the same vein, noise is responsible for lack of concentration and many of the teachers are distracted by noise. It also causes high blood pressure. Similarly, poor ventilation, noise, poor sanitary conveniences, and other adverse conditions affect poor performance. All these had been attested to by previous researchers. For instance, Wilson (2003), Okunuga (2005) and Ijaduola (2007) cautioned that with poor physical working conditions, there are usually mental fatigue, truancy, frustration, discomfort and poor health which lead to decline in teachers’ productivity.

Implication to Educational Planning

Fundamentally speaking, the inputs of an educational system can be classified into three types, namely, materials (money and supplies); personnel (teachers, pupils and administrative staff); and expectation of or demand for how the school will be run, and what it will achieve. Transformation takes places when the inputs are organized, activated and subjected to various norms of processes like learning, administering, planning, organising and mechanics so as to convert the human skills and materials into products, services and other outputs. These processing activities enable the system to yield outputs which can meet the system’s aspirations and expectations.

Similarly, each school system maintains close relationships with its environment; for it to survive, continuous and adequate inputs have to be supplied. It can indeed be postulated that the inputs, after undergoing transformation processes in terms of availability, adequacy and conduciveness, will have a relationship with the
quality of teachers’ productivity and thus the overall performance of the school system. On the basis of this postulation, some recommendations are necessary in the context of this study.

RECOMMENDATIONS
Following the findings of this study, the following recommendations are deemed to be appropriate:

1. First and foremost, employers of teachers in Ogun State should endeavour as much as possible to make funds available for the provision of adequate physical working conditions such as classrooms and offices; since their non-availability or inadequacy lower employees’ productivity.

2. Also, school offices and structures should be designed and located in places that are spacious so as to avoid congestion; preferably in locations where noise from passing vehicles and pedestrians will not disturb.

3. In the same vein, noise from generating machines should be kept away from the teachers’ offices and classes while noise reduction devices like covering the ceiling, and walls with sound proof materials should be in the schools. Air conditioners or fans should be installed to supplement the main source of ventilation that is windows. In addition, dedicated school cleaners should be employed and provided with necessary equipment such as brooms, dusters etc to enable them keep the schools and their surrounding environment clean.

REFERENCES
Adams, K. A. (2004). How to organize and generate school business. London: Pitman Publishing Ltd.

Aladesanmi, A. O. B. and Olaoye, N. R. (2002). Introduction to educational administration. Ibadan: Real Publications.

Anthony, A. J. (2007). Defining the administrative function. Journal of Educational Research, 46, 6-17.

Babalola, J.B. (2003). Budget preparation and expenditure control in education. In Babalola, J.B. (Ed.). Basic text in educational planning. Ibadan: Department of Educational Management, University of Ibadan.

Badejo, B.R. (2003): Costing educational practice. Oyo: Clearprint Enterprises.

Banmeke, N. O. (2006). A handbook on school administration and management. Lagos: Fortunate Books Publishers.

Borisade, F. T. (2004). Ideal teacher characteristics: Teacher quality and teacher productivity in Nigeria. Journal of Educational Challenges, 4, 65-77.

Collins, H. (2006). Invigoration of the environment for investment development. Illinois: Homewood.

Dan, A. P. (2000). Office practice and management. London: MacDonald and Evans.

Dejimi, M. A. (2003). Modern office administration and management. Onitsha:OptimalPress Ltd.

Ejiogu, B. D. (2005). Emergent issues in Nigerian education. Lagos: Longman.

Eletu, O. (2006). Foundation of modern business management. Ilorin: Jubil Books.

Fatoki, E. M. (2005). Psychology of learning. Ibadan:Rotam Ventures.

Feliz, J. R. (2004). Office practice for colleges. Boston: John Wiley and Sons.

Fijabi, F. A. (2004). The role of education in nation building. Journal of Arts and Social Science, 7, 28-36.

Ijaduola, K. O. (2006). The role of purpose and structure in organizational effectiveness. Journal of Management and Enterprises Development 3 (4): 15-24.
Ijaduola, K. O. (2007). Video films and sex attitudes of students: Implication on school management. *International Journal of African and American Studies*. (IJAAS), 6 (4), 26-34.

Ijaduola, K. O. (2008a). Non-governmental organizations and the financing of secondary education in Ogun State. *International Journal of Investment and Finance* 1 (1 & 2), 65-73.

Ijaduola, K. O. (2008b). Teacher welfare service as a factor of job performance in secondary schools. *Journal of Applied Education and Vocational Research*. 2 (4): 102-110.

Ijaduola, K. O. (2008c). Resource-use efficiency as a predictor of productivity in secondary schools in Ogun State. *Ghana Journal of Education and Teaching*, 1 (6): 54-59.

Ijaduola, K. O. (2008d). The impact of information and communication technology (ICT) on school administration SIGNAL – African Journal of Development and Policy Issues. 1 (2), 246-256.

Ijaduola, K. O. and Agbajeola, R. O. (2009). Effective school management: The humanistic approach option. *Journal of Library and Information Science* (JOLIS), 6 (1), 163-172.

Joel, B. A. and Shaw, M. R. (2001). *Office organization and method*. London Macmillan.

Kukoyi, O. A. (2002). *A Handbook on personnel management*. Ilesa: Kolawole Books Publishers.

Mills, D. (2003). *Office management and control*. London: Aslib.

Ogundalu, M. A. (2005). *How to enhance teachers’ productivity*. Mimeograph.

Ojukunle, B. A. (2005). *Notes on a general theory of administration* (Monograph) Department of Educational Management, University of Ibadan.

Okunuga, O. O. (2005). Teacher as a factor of quality education in Nigeria. *Journal of Educational Development*, 7, 10-18.

Oladewa, A. J. (2006). *Administration in business*. Oyo: Latos Publisher.

Omideina, A. A. (2003). Productivity in the teaching profession – Problem, Strategies and solution. *Journal of Educational Management*. Vol. 5, 71-83.

Onwuka, C. N. (2002). Making the classroom environment to facilitate effective classroom instruction. *Journal of Education Studies and Research* 3 (2): 34-46.

Sambo, J. R. (2005). Issues in the effective classroom instruction and teachers’ productivity. *Journal of Research Information in Education*. 2 (2): 19-28.

Silver, Z. (1998). *Management and working environment*. Plymouth: Evans Publishing Co.

Subair, R. O. and Awolere, A. (2006). A perspective on public involvement in management decision making. *Public Administration Review*. 39, (20) 208-217.

Taiwo, O. K. (2004). *Introduction to human resource management*. Oyo: Lamina Printers.

Telford, R & Masson, R. (2005) The congruence of quality values in higher education. *Quality Assurance in Education*, 13(2), 107-119.

Unuoha, C. R. (2005). *Office management in Nigeria: A behaviour objective approach*. Owerri: Chris and Chris Ventures.
Wilson, M. (2003). *Perspectives in school management*. Boston: Houghton Mifflin Co.

Received for Publication: 26/06/2012
Accepted for Publication: 10/08/2012

Corresponding author
Kayode Olu. IJADUOLA
Educational Management, Tai Solarin University of Education, Ijagun, Nigeria
Email: kijaduola07@yahoo.com