

EFFECT OF LATENESS TO SCHOOL ON SENIOR SECONDARY SCHOOL STUDENTS' ACHIEVEMENT IN PHYSICS AND MATHEMATICS IN KWALI AREA COUNCIL, FCT, ABUJA, NIGERIA

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Abstract

The study investigated the effect of lateness to school on senior secondary school students' achievement in Physics and Mathematics in Kwali area council, FCT Abuja, Nigeria. The design of this study was an ex-post facto research design. The population for this study consists of all physics and mathematics students in the public senior secondary schools in Kwali area council under FCT Abuja in the 2021/2022 academic session. 80 physics and mathematics SS2 students were selected from four schools using 3-stage sampling technique. The instruments used for the study was Students Register and Students' Academic Performance in Physics and Mathematics subjects in the 2021/2022 academic session. The study was guided by two research questions and hypotheses tested at $\alpha=0.05$ level of significance. The data collected were analysed using mean, standard deviation and t-test statistical analysis. The findings revealed that Punctuality to school had high positive effect on students' academic achievement in physics and mathematics. Lateness to schools contributed to female students' low academic achievement in physics and mathematics than their male counterparts. It was therefore recommended that government at all levels should increase education budget with the view to increasing number of schools. This would reduce students home school distance, thus reduce students lateness to school and Parent especially mothers should reduce giving domestic activities to female students at home especially in the morning hours within which students get ready for school.

Keywords: Lateness, punctuality, Physics, Mathematics, school system and academic achievement.

Introduction

One of the primary issues that have afflicted many schools is students arriving late to class. There are very few schools that are immune to this issue. The effects of this threat cannot be overstated because they have had a significant negative impact on students' academic performance and the operation of the school (Maile and Olowoyo 2017). Since tardiness is a function of time, this key criterion is typically employed to assess tardiness. Being late might mean not showing up on time for courses or being partially absent for a lesson or subject for a few minutes.

Theoretically, lateness has been classified into three categories; Chronic, Avoidable and Unavoidable sources. Chronic lateness is a response to a bad environment and with students' dislike by mates. It could be due to the level of commitment to the school and lack of satisfaction. Avoidable lateness (stable periodic lateness) occurs when students' think they have better or more important activities to do than to arrive on time for a particular lesson or class and in most cases, this happens with science subjects (Booth, 2011) especially Mathematics and Physics. Finally, unavoidable lateness is due to factors beyond the students' control such as transport problem, bad weather, illness and accident (Shapira-Lishchinsky and Shapira-Lishchinsky, 2018).

Literally, the term "Lateness" implies a situation where an individual arrives after the proper, scheduled or usual time (Oxford Advanced Learner Dictionary 5th ed. 1995). Dafiaghor (2011) put it as a term used to describe "people not showing up on time". Bataineh (2014) contributed by saying that lateness is synonymous with "tardiness" which implies being slow to act or show to respond, thus not meeting up with proper or usual timing. Lateness can be viewed as an outcome of laxity or system breakdown (Maile and Olowoyo 2017). Lateness to school violates the principle of punctuality and if not checked at the onset may become a habit with the individual involved and may have a negative consequence (Breeze et al 2010). Gender differences in lateness may be related to differences in how men and women perceive the ethics in any organization. The report of Attanasio and Kaufmann (2014) identified the role of gender in child schooling. From study, female-headed household have higher attendance in schools whereas educated father is more likely to have strong impact in increasing the probability of child school attendance than mother. Sarkodie, Ntow-Gyan, Bempong and Soak (2014) reported that lateness is common among female students than male students. This may be due to their involvement in domestics' activities. Therefore, lateness could result in poor academic achievement, disruption in class, difficulty in keeping an accurate record, reduced ability to meet instructional target and damage of school reputation (ETC, 2009).

According to scholars' definition, Tsou, Daniel, Lusher, Gupta, Jean and Jennifer (2014) academic performance has been described as the scholastics standing of a student at a given moment. This scholastics standing could be explained in terms of the grades (scores) obtained in a course or group of course. (Mallory & Williamsburg, 2004) comment on this scholastics standing an argued that performance is a measure of output and that the main output in education are expressed in term of learning, that is, changes in knowledge, skills, attitude of individual as a result of their experiences within the schools' system. Academic achievement is regarded as a student` performance in an examination as being depended on his cumulative grade point average. Academic performance according to the Cambridge University Reporter (2003) is define in term of examination performances. Academic achievement refers to what the student has learned or what skills the student has learned and is measured through an assessment like standardized tests, performance assessment and portfolio assessment (Amos, 2013). Academic achievement, which is measured by the examination result, is one of the major goals of a school. Hoyle and McMahan (2013) argued that schools are established with the aim of imparting knowledge and skill to those who go through them and behind all this is the idea of enhancing good academic achievement.

There are numerous causes of lateness to school, among others. The following are the major causes of lateness to school: Going late to bed, Watching films and night movies, Habit of waking up late, Distance/Location of school, Keeping friends of different status, Engagement in untimely domestic chore/activities, Innate anxiety level, Family background, Cultural background, Religious background, Too much body cares and excessive facial/body make up.

Statement of the problem

Lateness to school is a growing concern and it has become increasingly difficult to eradicate. Academic achievement appears to be determined by a combination of internal and external factors in the life of the learners. Students who are punctual in school gets full benefit of morning hour lessons, which are Physics and Mathematics, for these subjects are fixed during morning hour due to their importance. Few or no studies have been carried out at Kwali Area Council of the Federal Capital Territory to evaluate the causes and effect of lateness to school on the achievement of Secondary Schools' Students in Mathematics and Physics. In this study, researchers investigated the effect of lateness to school on academic achievement in Physics and Mathematics among Senior Secondary School 2 Students in Kwali area council, FCT Abuja, Nigeria.

Research Questions

The following research questions were posed to guide the study:

1. What is the academic mean achievement scores of students who are late and those punctual to school in Physics and Mathematics among senior secondary school 2 students in Kwali area council, FCT Abuja?
2. What is the gender relationship in terms of lateness to schools in Physics and Mathematics among senior secondary school 2 students in Kwali area council, FCT Abuja?

Research Hypotheses

The following hypotheses were formulated and tested at 0.05 level of confidence:

Ho₁: There is no significant difference between the mean achievement scores of students who are late and those punctual to school in Physics and Mathematics

Ho₂: There is no significant difference in the mean academic achievement scores in Physics and Mathematics between male and female students that are perpetual late comers to school.

Methodology

The study adopted ex-post facto research design in which the researcher does not have direct control on the independent variables, since the manifestation had already occurred. It involves the collection of existing data. The population for this study consists of all physics and mathematics students in the public senior secondary schools in Kwali area council under FCT Abuja in the 2021/2022 academic session. 80 physics and mathematics SSS2 students were selected from four schools using 3-stage sampling technique. In the first stage, Kwali Area Council was selected from the five Area Councils in the Federal Capital Territory (FCT), Abuja through a purposive sampling technique. At the second stage, four schools (two boarding schools and two day schools) were selected using simple random sampling technique. At the third stage, 20 SSS2 physics and mathematics students (5 male and 5 female habitual latecomers and 5 male and 5 female punctual students) were selected from each of the selected school through random sampling technique. Thus, a total of 80 SSS2 students constituted the sample for the study. The researchers made personal contact with all the selected schools and collected the following:

- i. Copies of SSS2 Science Class register was used to identify habitual latecomers and punctual students
- ii. The copy of Terminal Examination Physics and Mathematics results of 3rd term 2021/2022 academic session

Results

Research Question 1: What is the academic mean achievement scores of students who are late and those punctual to school in Physics and Mathematics among senior secondary school 2 students in Kwali Area Council, FCT Abuja?

Table 1: Descriptive Analysis of Perpetual Latecomers and Punctual Students' Academic Achievement in Physics and Mathematics

Group	N	Mean	SD	Standard E. Mean	Mean Difference
LCSPS	40	45.00	9.36	1.48	20.93
PSPS	40	65.93	19.50	3.08	
LCSMS	40	46.00	11.42	1.86	19.57
PSMS	40	65.85	19.35	3.06	

LCSPS - Latecomer's Students Physics Scores

PSPS - Punctual's Students Physics Scores

LCSMS - Latecomer's Students Mathematics Scores

PSMS - Punctual Students Mathematics Scores

Table 1 Indicates that the punctual students' Physics scores (PSPS) has high mean score $\bar{X} = 65.93$ with a standard deviation $SD = 19.50$ while the Latecomer Students' Physics scores (LCSPS) had a Mean score $(\bar{X}) = 45.00$ with Standard Deviation $(SD) = 9.36$. The difference between the two Mean (\bar{X}) was 20.93. Thus, Punctuality to school had a high positive effect on student's academic achievement in physics. Also, the punctual students' mathematics scores (PSMS) has high Mean score $(\bar{X}) = 65.85$ with a Standard Deviation $(SD) = 19.35$ while Latecomer Students Mathematics scores (LCSMS) had the Mean score $(\bar{X}) = 46.28$ with Standard Deviation $(SD) = 11.42$. The difference between the two mean scores was 19.57. Therefore, the Punctuality to school had high positive effect on students' academic achievement in mathematics.

Research Question 2: What is the gender relationship in terms of effect in lateness to schools in academic achievement in Physics and Mathematics among senior secondary school 2 students in Kwali Area Council, FCT Abuja?

Table 2: Descriptive analysis of the difference that exists in the academic achievement in Physics and Mathematics between male and female students that are perpetual late comers to school

	Group	N	Mean	SD	Standard E. Error	Mean Difference
LCSPS	Male	20	45.80	8.80	1.97	1.60
	Female	20	44.20	10.05	2.25	
LCSMS	Male	20	46.70	11.10	2.25	0.85
	Female	20	45.85	11.99	2.68	

From Table 3: It could be seen that, the LCSPS mean score (\bar{X}) of male students was found to be 45.80 with standard deviation (SD) = 8.80, while (\bar{X}) = 44.20 and SD = 10.05 were mean score and standard deviation respectively were recorded for female students in LCSPS. The difference of the two mean scores was 1.60. From the same table, it could be seen that, the LCSMS mean score of male students was found to be (\bar{X}) = 46.70 with standard deviation (SD) = 11.10, while female students in the same category was mean (\bar{X}) = 45.85 and standard deviation (SD) = 11.99. Thus, the difference of the two mean scores was 0.85. This implied that the lateness to schools contributed to female students' low academic achievement than male students' academic achievement in physics and mathematics.

Hypotheses Testing

Ho₁: There is no significant difference between the mean achievement scores of students who are late and those punctual to school in Physics and Mathematics

Table 3: T-test Analysis of the achievement mean scores of students who are late and those punctual to school in Physics and Mathematics

Group	N	Mean	SD	Standard Mean	E.T	df	P-Value
LCSPS	40	45.00	9.36	1.48	6.72	39	0.00
PSPS	40	65.93	19.50	3.08			
LCSMC	40	46.28	11.42	1.80	6.06	39	0.00
PSMS	40	65.93	19.35	3.06			

P < 0.05

Cursory look at table 3 revealed t-test used to determine the difference between the achievement mean scores of students who are late and those punctual to school in Physics and Mathematics. Result shows that the P-value obtained was 0.00 at $\alpha=0.05$ level of significance with degree of freedom 39. Therefore, since p-value is less than α -value, the null hypothesis is rejected, Thus, there is a significant difference between the achievement mean scores of students who are late and those punctual to school in Physics and Mathematics.

Ho₂: There is no significant difference in the mean academic achievement scores in Physics and Mathematics between male and female students that are perpetual late comers to school.

Table 4: T-test Analysis of the mean academic achievement scores in Physics and Mathematics between male and female students that are perpetual late comers to school

	Group	N	Mean	SD	Standard Mean	E. T	df	P-Value
LCSPS	Male	20	45.80	8.80		1.97		
	Female	20	44.20	10.05	2.25		0.54 38	0.00
LCSMS	Male	20	46.70	11.10	2.25			
	Female	20	45.85	11.99	2.68		0.54 38	0.00

P<0.05

Cursory look at table 4 revealed that t-test was used to determine the difference between the academic achievement mean scores of male and female students that are perpetual late comers to school in Physics and Mathematics. Results shows that the P-Value = 0.00 was less than 0.05 thus, the hypothesis was rejected and we concluded that there is a significant difference in the mean academic achievement scores between male and female students that are perpetual late comers to school in Physics and Mathematics. This implies that the lateness to school contributed to female students' low academic achievement than male students' academic achievement in physics and mathematics in senior secondary schools.

Discussion

This study had established that Punctuality to school had high positive effect on students' academic achievement. Also, it was established that there is a significant difference between the achievement mean scores of students who are late and those punctual to school in Physics and Mathematics. This is in agreement with the

findings of Chujor (2014) which reported that lateness to school disrupt the rhythm of the classroom teacher and also distract other students who may pay attention to the teacher. He further revealed that lateness to school has a positive relationship with students' low academic performance. Also, the result of the research corroborates the findings of Carolina, Lucia and Rosonna (2014) who discovered that lateness to school contributed immensely in a negative way to the academic achievement of learners and functioning of the school.

Considering gender, this study revealed that male students that are perpetual late comers had a higher Achievement Mean Score than their female counterparts in Physics and Mathematics. The study also established that there is a significant difference in the mean academic achievement scores between male and female students that are perpetual late comers to school in Physics and Mathematics. This implies that the lateness to school contributed more to female students' low academic achievement than male students' academic achievement in senior secondary schools. The finding is in conformity with the findings of Abubakar, Bashir and Vera (2011) which revealed that female's students are prone to lateness than male students in their study area in schools.

Conclusion

The summary of the findings are as follows:

- Punctuality to school had high positive effect on students' academic achievement.
- Lateness to schools contributed more to female students' low academic achievement than their male counterparts in schools.

Recommendations

- Parent especially mothers should reduce the domestic activities giving to female students at home especially in the morning hours within which students get ready for school. This will reduced female students' low academic achievement
- Government at all level should increase education budget with the view to increasing number of schools. This would reduce the distance of students from home to school; this would reduce students' lateness to school which will in turn improve students' academic achievement in schools.

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