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Full Length Research

Knowledge Sharing and Perceived Academic Performance of Public Secondary School Students in Lagos State, Nigeria

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This investigated the influence of knowledge sharing on perceived academic performance of students in public Secondary Schools in Lagos State, Nigeria. The study adopted survey research design. The population of the study comprised 5,458 public secondary school students in Lagos State, Nigeria. The sample size of 373 was determined using Taro Yamane formula. Multi-stage sampling technique was used to select the participants. A validated structured questionnaire was used for data collection. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.89 to 0.93. A response rate of 91% was achieved. Data were analyzed using descriptive and inferential (linear and multiple regression) statistics. The findings of the study revealed that knowledge sharing significantly influenced perceived academic performance of secondary school students in public secondary schools in Lagos State, Nigeria *Adj. R^2* = 018, *F* (1, 366) = 7.893; *p*< 0.05).The study concluded that knowledge sharing is crucial to perceived academic performance of students in public secondary schools in Lagos State, Nigeria. The study recommended that secondary school principals, government and Ministry of Education should strive to sustain positive perceived academic performance of public secondary school students in Lagos State, Nigeria. The secondary school principals and government should also continue to provide all forms of ways students can share knowledge in public secondary schools and make the students to improve their perceived academic performance.

Keywords: Knowledge sharing, perceived academic performance, Secondary school students

INTRODUCTION

Education plays a vital role in the development of human capital and is linked with an individual's wellbeing and opportunities for better living. It ensures the acquisition of knowledge, competence and skills that enable individuals to increase their productivity and improve their quality of life. This increase in productivity also leads to new sources of earning which enhances the economic growth of a country, and it starts with high academic performance of students in the school (Tarimo & Kavishe, 2017). Academic performance is the demonstration of a students' level of competence and mastery of subjects. The main outputs in education are expressed in terms of learning, that is, changes in knowledge, skills and attitudes of individuals as a result of their experiences within the school system. According to Stan (2019), academic performance is the level of attainment of a student in an examination. It is how a student is able to demonstrate his or her abilities in an examination.

Perception is an act or faculty of perceiving, or apprehending by means of the senses or of the mind, cognition, understanding, immediate or intuition; discernment. This is an insight or the faculty for understanding, knowledge gotten by perceiving, or a specific idea, concept, impression one formed. Perception occurs when sensory receptors receive stimuli and categorize them and assign certain meaning to them, depending on the person's frame of reference. Perception can be positive or negative. Perception of academic performance is the way students perceive their academic performance. Students with higher academic achievement had more positive perceptions regarding their education, while low-achieving students exhibited more negative perceptions of education. Similarly, Irfan and Shabana (2018) state that perception of academic performance of students at the secondary school level plays a very important role in producing the best quality graduates at tertiary level, who will become great leaders politically, socially, economically and spiritually. As a result, they will impact positively on the social, political and economic development of the country. Perception of academic performance of students is an important measure of academic success at every educational level such as primary, secondary and tertiary. Al-Shorayye (2015) regards a student's perception of academic performance in an examination as being dependent on his or her positive/ negative perception. Al further posited that a student's success is generally judged by examination performance, and that the best criterion of performance is the sum of the students' academic performance in all the subjects taken in the school. The study also reveals that researchers had deliberated much on students' perception of academic performance. Academic performance of students is a key feature in education, it is considered to be the center around which the whole education system revolves.

Narad and Abdullah (2016) opined that the perception of academic performance of students determines the success or failure of any institution. They also stated that perception of academic performance of students has a direct impact on the socio-economic development of any country.

Knowledge sharing is defined as exchange of employees' knowledge, skills, and experiences. It is an activity through which knowledge (namely, information, skills, or expertise is exchanged among people, friends, and peers. Knowledge sharing is the act of exchanging information or understanding between individuals, teams, communities, or organizations. Knowledge sharing is a knowledge management process that makes information available to those who actively seek it as well as directly communicates it to users who could potentially apply it for the benefit of your business.

Knowledge sharing takes place when information or knowledge is gained by individuals within a group and during the teaching and learning process. According to Yang (2019), knowledge sharing among students is very important especially to those students that are slow learners. The reason is that there are students that cannot catch up during class lesson and are not courageous enough to ask questions from the teacher, but during knowledge sharing with their mates, they can easily ask their mates and thereby get clarification. Any explanation from among them sticks so easily and encourages retention of knowledge.

Knowledge sharing is considered as a social phenomenon which relates to interpersonal relationship among the students. School authority, government and communities can help to provide opportunities where learners can share knowledge. This kind of gathering encourages knowledge sharing and helps students to improve their spoken English which is the language often used in examinations. The more they share knowledge, the more they gain more knowledge and know more about that topic, and this leads to elimination of fear and anxiety during examination, but lead to high perception of academic performance. As students are encouraged to form group reading and share what they have read, every one of them will come to know that topic and their academic performance will be high (Radnika & Franklina, 2018). During the last two decades, the act of knowledge sharing is becoming more popularized. As a result, academics and researchers are taking keen interest in different aspects of knowledge sharing, particularly in information and knowledge sharing among different categories of individuals. A considerable number of such studies have identified a wide variety of benefits in knowledge sharing in different types of institutions (Adjoa & Yebowah (2018); Ko, Kirsch, & King, 2019). Many of these studies have also indicated major barrier to sharing knowledge among students. This include: mind-set and unwillingness to share their knowledge due to a multitude of reasons, which also include attitude, gender, ego, and fear of the unknown.

Until recently, majority of the studies on knowledge sharing were mainly focusing on private and public organizations. However, it is realized that it is equally important to understand knowledge sharing behavior of students as they will be part of the future workforce. Chikoore and Ragsdell in Dwinyanti (2017) and Liu, Lin, Chang, and Chao (2016) found that secondary school students possess a positive attitude towards knowledge sharing and perceived it important for effective learning. However, they also reported that students were less inclined to share knowledge for those academic activities that were to be graded. Two major barriers inhibiting students from sharing their information and knowledge with their classmates were lack of depth in relationship and the fear that other students will outperform them. They also reported that academic competition was associated with decreased knowledge sharing while trust, teamwork and instructors' positive attitude resulted in more knowledge sharing. Knowledge sharing activities are part of the social interactions between all the learning components in the classroom. This has been demonstrated previously in the study that, knowledge sharing activities are positively related to student's academic performance levels. The social interaction

between students and their peers, teachers and their learning environment is one of the main elements that mediate the development of students' knowledge during the learning process. However, to maximize the potential of students learning interaction with teachers, they must have the ability to condition students to explain to each other in order to facilitate the exploration of reasoning and points of view, and the exchange of ideas among students in forming a common understanding. Abzar, Shahin and Abasaltian, (2019) socio-cultural theory of learning assure that people learn via social interaction and spreading ideas and experiences. Studies have revealed that knowledge sharing during collaborative learning leads to reflection and learning and offers advantages regarding cognitive gains and favorable learning outcomes. Students learn more academically and socially in cooperative interaction, compared with competitive or individualistic interaction (Roger & Marit, 2019). In addition, such knowledge exchanges help students to answer questions, solve problems, learn new things, improve their understanding about a certain topic, or contribute to helping others (Hogberg & Edvinsson, 2017).There are two types of knowledge namely; tacit and explicit knowledge. Tacit knowledge can be obtained and shared through discussions and observations. It can simply be described as knowledge that is tied to senses, people's heads, minds, tactile experiences, movement skill, intuition, unarticulated mantra models, or implicit rules of thumbs. Tacit knowledge is an informal personal knowledge that is embedded in the mental processes and uniquely rooted in individual experiences, beliefs, values and often times not easily learnt or fully expressed because it is obtained through experience and work practices (Opeke, 2020). Knowledge that is uttered, formulated in sentences, and captured in drawings and writings is explicit. Explicit knowledge refers to knowledge which is easily expressed by words or documents, easily codified and articulated in language, and can be repackaged, transferred and shared among individuals. Whatever the type of knowledge, it can be shared between two individuals, groups, teams, and organizations. This development has led to the emergence of knowledge sharing as a field of study which helps students academically

Research Questions

The following three research questions guided the study:

1. What is the level of perception of academic performance of students (Mathematics, English Language and Exam Anxiety) in public senior secondary schools in Lagos State, Nigeria?
2. To what level do public secondary school students share knowledge (tacit and explicit)?
3. What are the barriers to academic performance of public senior secondary school students in Lagos State, Nigeria?

HYPOTHESES

The following null hypothesis was tested and measured at 0.05 level significance:

1. There is no significant influence of knowledge sharing on perception of academic performance of   students in public secondary schools in Lagos State, Nigeria;

METHODOLOGY

A survey design was used to examine the influence of knowledge sharing on perceived academic performance of public secondary school students in Lagos State, Nigeria. Participants for the study include three hundred and seventy-three (373) secondary school students purposively selected from three (3) educational districts in Lagos State. A self-structured questionnaire was used to collect data for the study. The questionnaire consists of A, B and C. This includes questions in demographic data. The participants indicated to the set of items in the questionnaire based on their chose of their agreement or disagreement on the 4 point Likert scale. A test-retest reliability of two weeks' interval was carried out and cronbach alpha revealed a reliability score of 87%.The data collected from the questionnaire were analyzed and processed using percentage to ascertain how much information resources accessible to students, while Pearson product moment correlation co-efficient and multiple regression were used to assess the relationship between the independent variable (knowledge sharing) and dependent variable (perceived academic performance)

Data Analysis, Results and Discussion of Findings

Research Question 1: What is the level of perception of academic performance (Mathematics, English Language and Exam Anxiety) of students in public senior secondary schools in Lagos State, Nigeria?

This section presents information on level of perception of senior secondary school students on academic performance.

Table 1. *Level of Perception of Academic Performance of Students in Public Secondary Schools*

Level of perception on academic performance The level to which I perceive my academic performance …	To a Very High Level	To a High Level	To a Low Level	To a Very Low Level	M	SD
English Language					**3.56**	**0.49**
I often pass English Language exams	287(78.0)	69(18.8)	12(3.3)		3.71	.63
My teacher teaches English language well	213(57.9)	133(36.1)	17(4.6)	5(1.4)	3.51	.65
I understand English language well	214(58.2)	127(34.5)	6(1.6)	21(5.7)	3.45	.79
Exam Anxiety					**3.48**	**0.42**
Examination stress does not affect my performance	314(85.3)	38(10.3)	16(4.3)		3.77	.66
I am not afraid of passing my tests	198(53.8)	154(41.8)	16(4.3)		3.49	.58
When I hear of WAEC examination, I am not afraid	197(53.5)	144(39.1)	22(6.0)	5(1.4)	3.45	.67
I am always confidence of passing my mock exams	173(47.0)	104(28.3)	86(23.4)	5(1.4)	3.21	.85
Mathematics					**3.36**	**0.46**
I like mathematics	215(58.4)	92(25.0)	55(14.9)	6(1.6)	3.40	.80
My teacher teaches mathematics well	181(49.2)	142(38.6)	40(10.9)	5(1.4)	3.36	.73
Mathematic is easy for me to understand	159(43.2)	176(47.8)	23(6.3)	10(2.7)	3.32	.71
Perception on academic performance (Weighted Mean = 3.46)						

Source: Authors computation (2023)

Table above shows generally that there was a high level of perception of academic performance among students in public secondary schools in Lagos State, Nigeria ($\bar{x}$ = 3.46, on a scale of 4). Level of perception of academic performance was operationalized using English language, exam anxiety and mathematics. The average score for English Language sub-scale ($\bar{x}$ = 3.50) is very high, indicating that the students have a high level of positive perception towards their performance in English Language. The English Language sub-scale had all its item scores above the weighted mean. For instance, items on 'I often pass English Language exams($\bar{x}$ = 3.71)' and 'my teacher teaches English language well ($\bar{x}$ = 3.51)' had very high mean scores while the one on 'I understand English language well'$\bar{x}$ = 3.45' attracted high mean. For exam anxiety sub-scale, with a weighted mean of $\bar{x}$ = 3.48, most of the items responded to attracted high mean scores. For example, item bordering on 'Examination stress does not affect my performance ($\bar{x}$ = 3.77)' attracted the highest mean while the items on 'I am not afraid of passing my tests ($\bar{x}$ = 3.49)', 'When I hear of WAEC examination, I am not afraid ($\bar{x}$ = 3.45)', 'I am always confident of passing my mock exams ($\bar{x}$ = 3.21)' attracted high mean scores. This shows that students in public senior secondary schools in Lagos State, Nigeria experienced low level of exam anxiety.

Research Question 2: To what level do public senior secondary school students in Lagos State in Nigeria share knowledge (tacit and explicit)?

Table 2. Knowledge Sharing by Students in Public Senior Secondary Schools

Knowledge Sharing	To a Very High Level	To a High Level	To a Low Level	To a Very Low Level	M	SD
Tacit Knowledge Sharing					**3.21**	**0.57**
I teach my fellow students what I know	259(70.4)	93(25.3)	16(4.3)		3.66	.56
I always share knowledge with my mates	244(66.3)	82(22.3)	31(8.4)	11(3.0)	3.52	.77
I discuss class work with my class mates	200(54.3)	114(31.0)	34(9.2)	20(5.4)	3.34	.86
I feel happy when I share my knowledge with my mates	189(51.4)	124(33.7)	15(4.1)	40(10.9)	3.26	.96
I share my expertise with my mates	159(43.2)	114(31.0)	57(15.5)	38(10.3)	3.07	1.0
I share my skills with my mates	184(50.0)	87(23.6)	30(8.2)	67(18.2)	3.05	1.15
I do assignments together with my classmates	112(30.4)	82(22.3)	96(26.1)	78(21.2)	2.62	1.13
Explicit Knowledge Sharing					**2.78**	**0.77**
I share my textbooks with my mates	170(46.2)	94(25.5)	59(16.0)	45(12.2)	3.06	1.05
I feel satisfied when I share my knowledge with my mates	162(44.0)	96(26.1)	6(1.6)	104(28.3)	2.86	1.25
I do assignments together with my classmates	155(42.1)	74(20.1)	61(16.6)	78(21.2)	2.83	1.18
I share with my mates my answer scripts but not in examination hall	121(32.9)	75(20.4)	61(16.6)	111(30.2)	2.56	1.22
I share previous question papers with my mates	115(31.3)	82(22.3)	59(16.0)	112(30.4)	2.54	1.21
Knowledge Sharing (Weighted Mean = 3.00)						

Source: Authors computation (2023)

Table shows generally that there was a high level of knowledge sharing practice among students in public senior secondary schools in Lagos State, Nigeria (Weighted Mean= 3.00, on a scale of 4). Knowledge sharing was operationalized using tacit and explicit knowledge.

The average score for tacit knowledge sharing sub-scale ($\bar{x}$ = 3.21) is high, indicating that students in public senior secondary schools in Lagos State, Nigeria share tacit knowledge to a high level. The tacit knowledge sharing sub-scale had all its items score above the weighted mean. For instance, items on teaching fellow students ($\bar{x}$ = 3.66) and sharing knowledge with mates ($\bar{x}$ = 3.52) had very high mean scores while items on discussing classwork with classmate ($\bar{x}$ = 3.34), feeling happy while sharing knowledge ($\bar{x}$ = 3.26), sharing expertise with mates ($\bar{x}$ = 3.07), doing assignment with mates ($\bar{x}$ = 2.62) attracted high mean.

For explicit knowledge sharing sub-scale, with a weighted mean of $\bar{x}$ = 2.78, most of the items responded to attracted high mean scores. Items such bordering on 'I share my textbooks with my mates ($\bar{x}$ = 3.06)' attracted the highest mean while the items on 'I feel satisfied when I share my knowledge with my mates ($\bar{x}$ = 2.86)', 'I do assignments together with my classmates ($\bar{x}$ = 2.83)', 'I share with my mates my answer scripts but not in examination hall ($\bar{x}$ = 2.56)' and 'I share previous question papers with my mates ($\bar{x}$ = 2.54)' attracted high mean scores. This signifies that students in public senior secondary schools in Lagos State, Nigeria share explicit knowledge to a high level.

Research Question 3: What are the barriers to academic performance of public secondary school students in Lagos State, Nigeria?

In answering this question, the data collected from the field were analyzed and summarized as contained in Table above

Table 4. Barriers to Academic Performance

Challenges to academic performance	SA	A	D	SD	M	SD
The distance to the library is far	259(70.4)	70(19.0)	22(6.0)	17(4.6)	3.55	.80
Power supply is not stable for electronic resources	261(70.9)	66(17.9)	20(5.4)	21(5.7)	3.54	.83
The librarians' attitude to the information resources users is poor	185(50.3)	135(36.7)	26(7.1)	22(6.0)	3.31	.84
I do not know what to share	196(53.3)	104(28.3)	41(11.1)	27(7.3)	3.27	.93
Lack of knowledge sharing culture in the school	219(59.5)	74(20.1)	32(8.7)	43(11.1)	3.27	1.03
I do not know when to share knowledge with my mates	206(56.0)	98(26.6)	15(4.1)	49(13.3)	3.25	1.03
Information resources are not readily available	175(47.6)	85(23.1)	72(19.6)	36(9.8)	3.08	1.02
The cost of accessing information resources is high	192(52.2)	49(13.3)	51(13.9)	76(20.7)	2.97	1.22
I lack the initiative to voluntarily share information	143(38.9)	115(31.3)	44(12.0)	66(17.9)	2.91	1.10
Lack of relationship with my class mates, prevent me from sharing my knowledge with them	135(36.7)	105(28.5)	54(14.7)	74(20.1)	2.82	1.13
There is a restricted library hours so I do not go to the library often	135(36.7)	60(16.3)	66(17.9)	107(29.1)	2.61	1.24
Challenges (Weighted Mean = 3.02)						

Source: Authors computation (2023)

Response to research question three is presented in Table above. The result revealed that there are several barriers to academic performance of students in public senior secondary schools in Lagos State, Nigeria (Weighted mean = 3.02 on a scale of 4). Notably, 89.4% indicated the distance to the library is far as a barrier and 88.8% indicated unstable power supply as barriers to academic performance of students. This shows that the major barriers to perceived academic performance of students in public senior secondary schools are proximity and power issues. Other challenges militating against perceived academic performance of students were librarians' attitude (87.0%), not knowing what to share (81.6%), lack of knowledge sharing culture (79.6%), lack of inappropriate time in sharing knowledge (82.6%), unavailability of information resources (70.7%), cost of accessing information resources (65.5%), lack of initiative to share information (70.2%), lack of relationship with class mates (65.2%) and restricted library hours (53.0%). By implication, these challenges to academic performance of students deserve urgent attention.

Hypothesis: There is no significant influence of knowledge sharing (tacit knowledge and explicit knowledge) on perception of academic performance of public secondary schools students in Lagos State, Nigeria.

Linear regression analysis was used to test hypothesis. In line with the theoretical guidance of Tabachnick and Fidell (2019), the model of best fits was chosen to test the hypothesis.

Table 4. Knowledge Sharing (Tacit Knowledge) and Perception of Academic Performance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.166	.108		29.287	.000
Tacit knowledge	.093	.033	.145	2.809	.005

Dependent Variable: Perception of academic performance. $F_{(1, 366)} = 7.893$, $p < 0.05$. $R^2 = .021$, *Adj. R^2* $= .018$
In order to test hypothesis 3, the model of best fit, that is model containing tacit knowledge as predictor, was chosen to

test the hypothesis, this is contained in Table above. With the inclusion of explicit knowledge, the model fit was *Adj. R^2* =.017, however, when explicit knowledge was removed from the model, the model fit improved to *Adj. R^2* =.018. Therefore, the model with only tact knowledge was the better model (*Adj. R^2*) for testing hypothesis 3. This is presented in Table above.

According to the result of Table 4.13, tacit knowledge sharing (*Beta* = .145, *t* (364) = 2.809, *p* < .005) had a positive significant influence on perception of academic performance of students in public secondary schools in Lagos State, Nigeria. Thus, the higher the knowledge sharing practice among students, the higher their perception of academic performance. The model's coefficient of determination value, Adj. R^2 was found to be 0.018 indicating that 1.8% of perception of academic performance was explained by tacit knowledge sharing in public secondary schools in Lagos State, Nigeria. The *F* (1, 366) = 7.893, *p*< 0.05) revealed that tacit knowledge sharing was considered statistically significant in predicting perception of academic performance of students in public secondary schools in Lagos State, Nigeria. The results from Table 4.13 show that the predictor equation for perception of academic performance versus tacit knowledge sharing takes the form:

Perception of Academic Performance = 3.166 + 0.093 Tacit Knowledge Sharing

Discussion of Findings

This section presents the discussion of findings of the study in line with previous studies. There were three (3) research questions and one (1) hypothesis formulated based on the objectives of the study which aimed at investigating the influence of knowledge sharing on perceived academic performance of students in public secondary schools in Lagos State, Nigeria.

Research question one sought to find out the level of perceived academic performance of students in public senior secondary schools in Lagos State, Nigeria. The result revealed that there is a very high level of perceived academic performance by students in public senior secondary schools in Lagos State, Nigeria. Furthermore, the results indicated that the students had a high level of positive perception towards their performance in English Language and Mathematics. Also, the students experienced low level of exam anxiety. This result suggests that students in the public senior secondary schools in Lagos State, Nigeria performed well in their examinations because of the aforementioned reasons

Research Question 2 sought to find out at what level the students in public secondary schools in Lagos State, Nigeriashare knowledge (tacit and explicit). The respondents agreed that knowledge is shared by students in public secondary schools in Lagos State. Knowledge sharing was measured using two dimensions, namely tacit knowledge sharing and explicit knowledge sharing with the average mean score for each of the knowledge sharing indicators calculated. The results show that the students share both tacit knowledge and explicit knowledge. Of the two dimensions of knowledge sharing activities measured, tacit knowledge sharing was higher than explicit knowledge sharing. This result suggests that, tacit knowledge sharing is prevalent among students of public secondary schools in Lagos State. By implication, both tacit and explicit knowledge sharing is practiced among the students in public secondary schools in Lagos State, Nigeria; however, tacit knowledge is mostly practiced.

Research Question 3.   The result revealed that there were barriers to academic performance of public senior secondary school students in Lagos State, Nigeria. The result revealed that there are several barriers to academic performance of students in public secondary schools in Lagos State, Nigeria (Weighted mean = 3.02 on a scale of 4). Notably, 89.4% indicated the distance to the library is far as a barrier and 88.8% indicated unstable power supply as barriers to academic performance of students. This shows that the major barriers to academic performance of students in public senior secondary schools are proximity and power issues. Other challenges militating against academic performance of students were librarians' attitude (87.0%), not knowing what to share (81.6%), lack of knowledge sharing culture (79.6%), lack of inappropriate time in sharing knowledge (82.6%), unavailability of information resources (70.7%), cost of accessing information resources (65.5%), lack of initiative to share information (70.2%), lack of relationship with class mates (65.2%), and restricted library hours (53.0%). By implication, these challenges to academic performance of students deserve urgent attention

Hypothesis 1: There is no significant influence of knowledge sharing on academic performance of students in public secondary schools in Lagos State, Nigeria. After testing this hypothesis, evidence showed that there was a significant correlation between knowledge sharing and academic performance of students in public secondary schools in Lagos State, Nigeria. The positive significant correlation implies that as the knowledge sharing increases, there will be an increase in the academic performance of students, although, it is a moderate correlation.

CONCLUSION

This study demonstrates that knowledge sharing is a critical factor for enhancing perceived academic performance of students in public secondary schools in Lagos State, Nigeria. From the present study, it has been discovered that knowledge sharing influenced perceived academic performance of the students. However, knowledge sharing faced challenges which must be resolved to ensure effective usage of the resources by the students in public secondary schools in Lagos State Nigeria. The results revealed that knowledge sharing is vital for students' perceived academic performance in public secondary schools in Lagos State, Nigeria.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

Lagos State Ministry of Education should continue to make examination centers less frightful.
The secondary school Principals should keep encouraging the students to share knowledge among themselves.
Lastly, the major challenges militating against perceived academic performance such as far distance to the library, unstable power supply for accessing electronic resources, lack of knowledge sharing culture, poor attitude of librarians to library users and not knowing what to share should be addressed by the public senior secondary schools' principals.

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