

**Информационная грамотность и персональные навыки школьных учителей:  
Опыт изучения на примере школ Лагоса, Нигерия, и Дурбана, Южная Африка**

**Insight into Information Literacy Skills and Personal Abilities  
of Secondary School Teachers: Some experiences from Lagos,  
Nigeria and Durban, South Africa**

*Олуволе Олумиде Дуродолу*

*Университет Лагоса, Нигерия, и Университет Зулуленда,  
Южная Африка*

*Деннис Очолла*

*Университет Зулуленда,  
Южная Африка*

*Oluwole Olumide Durodolu*

*University of Lagos, Nigeria and University of Zululand,  
South Africa*

*Dennis N. Ocholla*

*University of Zululand,  
South Africa*

Информационная грамотность – базовое условие непрерывного, в течение всей жизни, обучения, особенно актуальное для профессии учителя средней школы. Именно учителя передают информацию ученикам, развить в них навыки творческого, критического мышления и непрерывного обучения. Авторами были проанализированы навыки информационной грамотности и персональные навыки учителей средних школ Лагоса, Нигерия, и Дурбана, Южная Африка. В рамках исследования были поставлены следующие проблемы и выдвинуты следующие гипотезы: осознание учителями необходимости приобретения информационной грамотности; цели, для которых они нуждаются в информации; виды информационных ресурсов, которые они используют в обучении; частота обращения к информационным ресурсам; поисковые стратегии при использовании онлайн-источников; уровень самооценки информационной грамотности учителей; метакогнитивные навыки, задействованные при использовании информационных ресурсов. Была применена постпозитивистская исследовательская парадигма, объединяющая в себе как количественные, так и качественные методы и исследовательскую схему практического анализа поведения множественных объектов. Исследуемую группу составили учителя средних школ г. Лагоса, Нигерия, и Дурбана, Южная Африка, из которых и была произведена выборка. Штат Лагос представлен 21 местными органами управления, и на момент исследования общее количество учителей составляло в нем 8329 человек. Город Дурбан разделен на 4 округа, представляющих 16 административных районов. За исключением начальных школ, независимых школ и объединенных [со школами других ступеней обучения] школ, исследованием была охвачена 41 средняя школа и 4887 учителей. Результаты исследования показали, что, несмотря на потребность в навыках информационной грамотности, электронные ресурсы используются по минимуму; в обоих городах занятые в информационном обслуживании библиотекари не обладают соответствующей квалификацией, что противоречит государственному законодательству; молодые учителя обладают большей информационной грамотностью в сравнении со старшими коллегами, так же как и учителя-женщины по сравнению с мужчинами; школьные библиотеки не отвечают потребностям учителей; между тем, поисковые стратегии и метакогнитивные навыки учителей находятся на уровне ниже среднего. Приведены рекомендации о непрерывном обучении учителей навыкам информационной грамотности, об интенсификации подготовки школьных библиотекарей в соответствии со стандартами. Кроме того, как и в случае с высшими учебными заведениями/университетами, правительствам и органам управления можно порекомендовать обязать школы иметь систему библиотечного обеспечения или библиотеку – что особенно актуально для средних школ. Такая политика должна быть обеспечена ресурсами и инфраструктурой, а также должна опираться на информацию о передовом опыте в данной области. Познакомиться с полным отчетом об исследовании можно здесь: [www.uzdspace.ac.za](http://www.uzdspace.ac.za)

**Ключевые слова:** информационная грамотность, школьные библиотеки, Южная Африка, Нигерия, Дурбан, Лагос.

Information literacy is fundamental for lifelong learning, especially for the teaching profession, where information is critical for imparting knowledge to students who are expected to be creative, critical thinkers and lifelong learners. The study investigates the information literacy (IL) skills and personal abilities of secondary school teachers in Lagos, Nigeria and Durban, South Africa. The following research questions and hypotheses were pursued in the study: the teachers' perceptions about the need for information literacy; the purposes for which they need information; the types of information resources they access for teaching purposes; the frequency of use of information resources; the search strategies employed in using online information resources; the level of teachers' information self-concept; and metacognitive abilities employed in using information resources. A post-positivist research paradigm combining both qualitative and quantitative research methodologies, largely through multi-case study research design, was used. Data was gathered through questionnaires, interviews, observation and document analysis that included a literature review. The study population was secondary school teachers in Lagos and Durban where the research sample was drawn. Lagos State has 20 local governments, and at the time of the research a total teacher population of 8 329. Durban is divided into four Circuits representing 16 wards. Excluding primary schools, independent schools and combined secondary schools, there are 41 secondary schools and 4 887 teachers. It was found that IL is required for teaching, the use of e-resources was minimal, many of those employed in the two cities were not professionally qualified librarians regardless of government regulation stating the qualifications of school librarians, younger teachers were more information literate, female teachers were significantly more information literate than their male counterparts, school libraries were not built for their purposes, and the search strategy and metacognitive skills of the teachers was below average. The study recommends that continuous training for teachers in information literacy is essential, training of school librarians needs to be intensified so that schools employ qualified librarians. Also, governments need to make it mandatory-as in the case of universities/Higher education institutions- that no schools be established without approved library support systems in place or without school libraries, particularly in secondary schools. Such policy should be supported with resources and infrastructure as well as knowledge of best practice in the sector. Find full report at [www.uzdspace.ac.za](http://www.uzdspace.ac.za)

**Keywords:** information literacy, school libraries, South Africa, Nigeria, Durban, Lagos.

## 1. Introduction

Academic and professional literature (see Durodolu, 2016a&b; Durodolu and Ocholla, 2017) has reported the countless benefits of information literacy in the USA, Europe and Asian countries for improving the performance of teachers, and indeed all professionals. Nevertheless, such revelations are infrequently mentioned in most developing countries. Regardless of the well-known benefits of information literacy, few researchers have reported on its importance to the teaching profession. The use of modern facilities to access information resources has surged significantly in most developed countries of the world, and has assisted teachers in their curriculum delivery, and thus the enlightenment of learners and citizenry. Although teachers and students in developed nations reap the benefit of their ability to access and use quality information, developing countries, like Nigeria, continue to lag far behind because the infrastructure that drives the contemporary information environment is still operating at a rudimentary level. For instance, computer systems are predominantly imported from other countries, which makes for exorbitant prices, and the ability to use the Internet to access information is stifled because of the erratic nature of the power supply.

Several years of military rule in Nigeria had an adverse effect, especially on teachers and the educational sector in general. The dawn of the military era left the country with a heritage of unfulfilled promises, with constant changes in policy, fraud, injustice, religious and racial intolerance, poverty and general misery. This led to severe economic consequences, with government unable to pay teachers' salaries, and the teachers embarking on a sequence of industrial unrest leading to changes in the academic calendar (Online Nigeria, 2015).

South Africa has been described as a country with attributes of both First- and Third-World countries. This affects access to information resources along this social divide, with a privileged minority having schools enjoying all the benefits of quality equipment, including libraries. In contrast, the majority of the population in rural areas and townships confront problems in accessing ICT equipment because of relatively low-level infrastructure. In consequence, the problem of a digital divide within the society becomes deeper, and minimizes access to global knowledge in the less privileged communities. Noteworthy disparities between schools in previously advantaged and historically disadvantaged locations still exist today.

The primary role of teachers is capacity building and human capital development, and this responsibility is of paramount importance for any country that is eager for educational development. However, the capacity of teachers in Lagos and Durban to meet this responsibility is hampered by a lack of information literacy. This gap has serious implications for students who are deprived of the opportunity to acquire basic library skills and information literacy techniques that could aid their ability to survive in the rapidly changing information environment.

Another limitation for teachers in Nigeria and South Africa is the lack of authentic access points and terminals for accessing information. As a result, the task for most teachers when seeking information is to open access to search engines. The resources in these search engines are overwhelming, but most teachers lack the requisite skills to ascertain the authenticity, validity and reliability of the resources available online. Many of the open access electronic resources are platforms where a lot of people can upload their contents without going through the peer review mechanism to evaluate the content before making it public. It is a well-established fact that many teachers develop a resistance to using technology. This 'technophobia' is reflected in their reluctance to embrace modern tools and techniques of information and communication, and apply them to classroom activities (Howard, 2013).

The focal rationale of the current study was to explore the topic of the information literacy skills and personal abilities of secondary school teachers in Lagos, Nigeria and Durban, South Africa. This will offer a comparative representation of educational endeavour in two major cities in Africa, and also help to deal with gaps in the literature by conducting an in-depth study. The findings will be of enormous benefit to the two cities, especially in the areas of policy formulation, offering guiding principles for better performance, suggesting a culture of better practice, and advocating special training, techniques and theory.

The purpose of this study is to determine the information literacy skills and personal ability of secondary school teachers. The intention is to make comparisons across two cities of Lagos and Durban in a multiple case study research basis. The study responds to the following research questions: What are the teachers' perceptions about the need for information literacy skills in the implementation of secondary school subjects' instruction?; For what purposes do secondary school teachers need information?; What is the frequency of use of various information resources by secondary school teachers?; What information search strategy is being exploited by teachers in using online information resources?; What is the information self-concept level of teachers in secondary schools?; What are the metacognitive abilities of teachers in the use of information resources in classroom instruction?.

## **2. Methodology**

The study adopted a post-positivist research paradigm combining both qualitative and quantitative research methodologies largely through multi case study research design. Data was gathered through questionnaires, interviews, observation and document analysis that included a literature review. The target population was secondary school teachers in Lagos and Durban. The sample for the research was drawn from teachers in government secondary schools in Lagos and Durban. Lagos State has 20 local governments, and at the time of the research a total teacher population of 8 329. Durban is divided into four Circuits representing 16 wards. Excluding primary schools, independent schools and combined secondary schools, there are 41 secondary schools and 4 887 teachers. Interviews and observation were also used as instruments of data collection to triangulate and validate the research results obtained by the questionnaire.

Multistage sampling technique was used in the first instance to purposively select samples from the two cities of Lagos and Durban in order to make comparisons. The second stage involved stratified random sampling, and the third stage applied simple random sampling. A sample of six local governments was selected from 20 in Lagos State, and referred to as primary sampling units (PSUs). Lagos State was divided into six educational districts (EDs). The first stage sampling involved selecting one local government out of three or four in each ED. The second stage sampling comprised a few secondary schools selected at random from all the schools in selected local governments, and the third stage was a selection of some teachers from all the teachers in the selected secondary schools. The selected local secondary schools were called secondary sampling units (SSUs). All the responding units in each SSU, i.e. the teachers, were given the questionnaires to fill in. Triangulation of three data gathering instruments

enabled convergence measurement for confidence in the outcome of the research. Content analysis of the contextual setting relating to the information literacy environment in Nigeria and South Africa was done. The respondents were drawn from secondary school teachers in Lagos and Durban, with 368 valid questionnaires returned with useful responses, 193 (52.4%) in Lagos and 175 (47.6) in Durban. Eight librarians were also interviewed to validate the responses from the questionnaires, four in Lagos and four in Durban.

Face and content validity was achieved through the verification of response to the research instruments by academics in the Department of Information Studies at the University of Zululand, South Africa. Dependability of the research instruments was achieved through a pilot survey that tested the instruments among 57 teacher-librarians at the University of Zululand. In addition, Cronbach alpha technique was used to determine the reliability of the instruments. The data collected for this research was subject to reliability coefficient tests variable by variable. The outcome shows that the overall reliability coefficient, when all the items in the questionnaire were taken together, was .801 ( $r = .801$ ). Therefore, all the items in the questionnaire were found to be reliable. The theoretical underpinning of this research was based on the technology acceptance model (TAM), which helps in understanding human-machine interface (HMI) through perceived usefulness (PU) and perceived ease of use (PEU) (see Durodolu, 2016a).

### 3. Results

#### 3.1. The respondents' profiles

Table 1: Profiling the respondents

Statement		Cities		Male		Female		Total	
		Lagos		77 (39.9%)		116 (60.1%)		193 (100.0%)	
		Durban		43 (24.6%)		132 (75.4%)		175 (100.0%)	
		Cities	16–20	21–25	26–30	31–35	36 above	Total	
Age	Lagos	1 (0.5%)	11 (5.7%)	17 (8.8%)	41 (21.2%)	123 (63.7%)	193 (100.0%)		
	Durban	0 (0%)	13 (7.4%)	21 (12.0%)	28 (16.0%)	113 (64.6%)	175 (100.0%)		
			<b>1–5</b>	<b>6–10</b>	<b>11–15</b>	<b>16–20</b>	<b>21–25</b>	<b>26–30</b>	<b>Total</b>
Years of experience	Lagos	46 (23.8%)	41 (21.2%)	28 (14.5%)	37 (19.2%)	10 (5.2%)	31 (16.1%)	193 (100.0%)	
	Durban	31 (17.7%)	46 (26.3%)	27 (15.4%)	29 (16.6%)	10 (5.7%)	32 (18.3%)	175 (100.0%)	
<b>Academic qualifications</b>									
				<b>Lagos</b>		<b>Durban</b>			
Matric				–		2 (1.1%)			
Diploma in Education/NCE				11 (5.7%)		18 (10.3%)			
Senior Secondary Teachers Diploma				–		19 (10.9%)			
National Professional Diploma in Education				–		18 (10.3%)			
Bachelor of Arts				14 (7.3%)		21 (12.0%)			
Bachelor of Science				43 (22.3%)		26 (14.9%)			
Bachelor of Education				95 (49.2%)		40 (22.9%)			
Postgraduate Certificate in Education				10 (5.2%)		16 (9.1%)			
Masters of Education				20 (10.4%)		15 (7.8%)			
Total				193 (100.0%)		175 (100.0%)			

**3.2. What are the teachers' perceptions about the need for information literacy skills in the implementation of secondary schools' subjects instruction?**

*Table 2: Teachers' perceptions on the need for information literacy skills*

<b>Statement</b>	<b>Cities</b>	<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>	<b>Total</b>
I need information literacy skills to be an effective teacher	Lagos	11 (5.7%)	14 (7.3%)	94 (48.7%)	74 (38.3%)	–	193 (100.0%)
	Durban	12 (6.8%)	18 (10.2%)	36 (20.5%)	109 (62.3%)	–	175 (100.0%)
I need training in how to effectively use the internet	Lagos	16 (8.3%)	31 (16.1%)	93 (48.1%)	50 (25.9%)	–	193 (100.0%)
	Durban	16 (9.1%)	31 (17.7%)	83 (47.4%)	63 (36.0%)	–	175 (100.0%)
I need training in how to use academic electronic databases	Lagos	8 (4.1%)	16 (8.3%)	106 (54.9%)	63 (32.6%)	–	193 (100.0%)
	Durban	9 (5.1%)	25 (13.1%)	74 (42.3%)	67 (38.3%)	–	175 (100.0%)
I need to be trained in the proper use of the library	Lagos	35 (18.1%)	45 (23.3%)	91 (47.1%)	22 (11.4%)	–	193 (100.0%)
	Durban	15 (8.6%)	49 (28.0%)	67 (38.3%)	44 (25.1%)	–	175 (100.0%)
I need information literacy skills to effectively use a library	Lagos	26 (13.5%)	37 (19.2%)	104 (53.9%)	26 (13.5%)	–	193 (100.0%)
	Durban	17 (9.7%)	36 (20.6%)	76 (43.4%)	46 (26.3%)	–	175 (100.0%)
I need information literacy skills to effectively retrieve information in any format from any source	Lagos	13 (6.7%)	41 (21.2%)	92 (47.7%)	47 (24.4%)	–	193 (100.0%)
	Durban	11 (6.3%)	27 (15.4%)	80 (45.7%)	75 (42.9%)	–	175 (100.0%)
I need information literacy skills to avoid plagiarism	Lagos	22 (11.4%)	22 (11.4%)	90 (46.6%)	59 (30.6%)	–	193 (100.0%)
	Durban	14 (8.0%)	27 (15.4%)	80 (45.7%)	54 (30.9%)	–	175 (100.0%)
I need information literacy skills to effectively use a search engine	Lagos	9 (4.7%)	32 (16.6%)	106 (54.9%)	46 (23.8%)	–	193 (100.0%)
	Durban	11 (6.3%)	27 (15.4%)	89 (50.6%)	48 (27.4%)	–	175 (100.0%)
I need strategic ability to log in and retrieve information	Lagos	15 (7.8%)	25 (12.9%)	108 (55.9%)	45 (23.3%)	–	193 (100.0%)
	Durban	11 (6.2%)	26 (14.8%)	90 (51.4%)	48 (27.4%)	–	175 (100.0%)
I need the ability to recognize how current awareness technologies (e.g., RSS feeds, blogs) can be used to stay informed in areas of interest	Lagos	7 (3.6%)	27 (13.9%)	105 (54.4%)	54 (27.9%)	–	193 (100.0%)
	Durban	10 (5.7%)	21 (12.0%)	93 (53.1%)	51 (29.1%)	–	175 (100.0%)
I need the ability to recognize information overload and develop strategies to manage information anxiety	Lagos	7 (3.6%)	23 (11.9%)	123 (63.7%)	40 (20.7%)	–	193 (100.0%)
	Durban	13 (7.4%)	19 (10.9%)	98 (56.0%)	45 (25.7%)	–	175 (100.0%)

Key: Strongly Disagree = SD; Disagree = D; Undecided = UN; Agree = A; Strongly Agree = SA

### 3.3. For what purposes do secondary school teachers need information?

Table 3: Purposes for which teachers need information

	Cities	VF	F	S	R	N	Total
Teaching preparation	Lagos	99 (51.3%)	68 (35.2%)	13 (6.7%)	9 (4.7%)	4 (2.1%)	193 (100.0%)
	Durban	78 (44.6%)	51 (29.1%)	9 (5.1%)	4 (2.3%)	10 (5.7%)	175 (100.0%)
Guiding students' classroom activities	Lagos	73 (37.8%)	70 (37.2%)	37 (19.2%)	8 (4.2%)	5 (2.6%)	193 (100.0%)
	Durban	55 (31.4%)	68 (38.9%)	35 (20.0%)	7 (4.0%)	10 (5.7%)	175 (100.0%)
Support curriculum development	Lagos	68 (35.2%)	84 (43.5%)	35 (18.1%)	16 (8.3%)	3 (1.6%)	193 (100.0%)
	Durban	66 (37.7%)	55 (31.4%)	37 (21.1%)	6 (3.4%)	11 (6.3%)	175 (100.0%)
Development competence	Lagos	78 (40.4%)	76 (39.4%)	18 (9.3%)	12 (6.2%)	9 (4.7%)	193 (100.0%)
	Durban	61 (34.9%)	62 (35.4%)	32 (18.3%)	10 (5.7%)	10 (6.7%)	175 (100.0%)
Keep up with current trends	Lagos	88 (45.6%)	68 (35.2%)	21 (10.9%)	5 (2.3%)	7 (3.6%)	193 (100.0%)
	Durban	61 (34.9%)	67 (38.3%)	28 (16.0%)	6 (3.4%)	4 (2.3%)	175 (100.0%)
Preparation for promotion interview	Lagos	72 (37.3%)	78 (40.4%)	24 (12.4%)	9 (4.7%)	6 (3.1%)	193 (100.0%)
	Durban	43 (24.6%)	42 (24.0%)	46 (26.3%)	14 (8.0%)	14 (8.0%)	175 (100.0%)
Preparing lecture notes	Lagos	82 (42.5%)	67 (34.7)	27(13.9%)	16 (8.3%)	6 (3.1%)	193 (100.0%)
	Durban	42 (24.0%)	51(29.1%)	32 (18.3%)	15 (8.6%)	35 (20.0%)	175 (100.0%)
Workshop and seminar a presentation	Lagos	64 (33.2%)	73 (37.8%)	41(21.2%)	7 (3.6%)	8 (4.1%)	193 (100.0%)
	Durban	43 (24.6%)	53 (30.3%)	32 (18.3%)	17 (9.7%)	30 (17.1%)	175 (100.0%)
General awareness	Lagos	65 (33.7%)	85 (44.0%)	22 (11.4%)	13 (6.7%)	8 (4.1%)	193 (100.0%)
	Durban	40 (22.9%)	70 (40.0%)	40 (22.9%)	12 (6.9%)	13 (7.4%)	175 (100.0%)
Service or job requirement	Lagos	59 (30.6%)	66 (34.2%)	34 (17.6%)	16 (8.3%)	18 (9.3%)	193 (100.0%)
	Durban	34 (19.4%)	55 (31.4%)	44 (25.1%)	21 (12.0%)	21 (12.0%)	175 (100.0%)
Reading purposes only	Lagos	37 (19.2%)	83 (43.0%)	43 (22.3%)	10 (5.2%)	20 (10.4%)	193 (100.0%)
	Durban	34 (19.4%)	50 (28.6%)	56 (32.0%)	10 (5.7%)	25 (14.3%)	175 (100.0%)
Carry out administrative work	Lagos	55 (28.5%)	86 (44.6%)	29 (15.0%)	15 (7.8%)	8 (4.1%)	193 (100.0%)
	Durban	35 (20.0%)	52 (29.7%)	54 (30.9%)	10 (5.7%)	24 (13.7%)	175 (100.0%)

**3.4.: What is the frequency of use of various information resources by secondary school teachers?**

*Table 4: Frequency of use of information resources by teachers*

Information resources	Cities	VF	F	NF	NA	Total
Computer	Lagos	57(31.5%)	57(31.5%)	53(29.3%)	26(13.4%)	193(100.0%)
	Durban	58(33.1%)	68(38.8%)	24(13.7%)	25(14.2%)	175 (100.0%)
Internet	Lagos	49(25.3%)	68(35.2%)	48(24.8%)	26(13.4%)	193(100.0%)
	Durban	59(33.7%)	45(25.7%)	37(21.1%)	47(26.8%)	175(100.0%)
E-resources	Lagos	32(16.5%)	62(32.1%)	44(22.7%)	55(28.4%)	193(100.0%)
	Durban	37(21.1%)	36(20.5%)	36(20.5%)	66(37.7%)	175(100.0%)
Newspapers	Lagos	48(24.8%)	73(37.8%)	39(20.2%)	33(41.4%)	193(100.0%)
	Durban	71(40.5%)	43(24.5%)	30(17.1%)	31(7.4%)	175(47.7%)
Email	Lagos	35(18.1%)	74(38.8%)	12(6.2%)	36(18.6%)	193(100.0%)
	Durban	40(22.8%)	42(24.0%)	38(21.7%)	55(31.4%)	175(100.0%)
Library resources	Lagos	38(19.6%)	64(33.1%)	41(21.2%)	17(8.8%)	193(100.0%)
	Durban	37(25.7%)	47(32.6%)	35(24.3%)	56(17.4%)	175(100.0%)
Electronic libraries	Lagos	33(17.0%)	42(21.7%)	36(18.6%)	82(42.4%)	193(100.0%)
	Durban	34(19.4%)	20(11.4%)	28(16.0%)	93(53.1%)	175(100.0%)
Books	Lagos	83(43.0%)	57(29.5%)	20(10.3%)	33(7.25%)	193(100.0%)
	Durban	82(52.9%)	42(24.0%)	10(5.71%)	41(23.4%)	175(100.0%)
Theses and dissertations	Lagos	11(5.6%)	36(18.6%)	37(19.2%)	11(56.9%)	193(100.0%)
	Durban	23(13.1%)	17(9.7%)	18(10.2%)	114(64.1%)	175(100.0%)
CD Rom	Lagos	12(6.2%)	33(17.0%)	52(26.9%)	96(18.2%)	193(100.0%)
	Durban	22(12.5%)	33(18.8%)	22(12.5%)	98(42.1%)	175(100.0%)
Monographs	Lagos	11(5.7%)	27(13.9%)	32(16.6%)	123(63.7%)	193(100.0%)
	Durban	14(8.0%)	10(5.7%)	21(12.0%)	130(74.2%)	175(100.0%)
Electronic books	Lagos	18(9.3%)	24(12.4%)	42(21.8%)	109(56.5%)	193(100.0%)
	Durban	13(7.4%)	10(5.7%)	29(16.5%)	60(34.2%)	175(100.0%)
Reports	Lagos	22(11.4%)	44(25.1%)	52(26.9%)	75(38.8%)	193(100.0%)
	Durban	25(14.3%)	25(14.3%)	30(17.1%)	50(28.6%)	175(100.0%)
Grey literature	Lagos	8(4.1%)	34(17.60%)	37(19.1%)	114(59.1%)	193(100.0%)
	Durban	13(7.4%)	15(8.6%)	24(13.7%)	123 (70.3%)	175(100.0%)
Indexes	Lagos	14(8.6%)	31(22.9%)	36(18.7%)	114(59.0%)	193(100.0%)
	Durban	7(4.0%)	13(7.5%)	20(11.4%)	135(77.1%)	175(100.0%)
Journals	Lagos	16(10.4)	56(36.4%)	49(31.8%)	33(21.4%)	154(100.0%)
	Durban	20(15.0)	31(23.3%)	31(23.3%)	51(38.3)	133(100.0%)
Audio-Visual resources	Lagos	37(23.3%)	45(28.3%)	58(36.5%)	19(11.9%)	159(100.0%)
	Durban	34(24.6%)	27(19.6%)	35(25.4%)	42(30.4%)	138(100.0%)

Key: Very frequently = VF; Frequently = F; Not frequently = NF; Not at all = NA

**3.5 What information search strategy is being exploited by teachers in using online information resources?**

*Table 5: Information search strategy being used by teachers in their use of online information resources*

Search Strategies	Cities	Yes	No	Total
Natural language	Lagos	160 (82.9%)	33 (17.1%)	193 (100.0%)
	Durban	118 (67.4%)	57 (32.6%)	175 (100.0%)
Word and phrase search	Lagos	121 (62.7%)	72 (37.3%)	193 (100.0%)
	Durban	108 (61.7%)	67 (38.3%)	175 (100.0%)
Keywords	Lagos	137 (70.9%)	56 (29.1%)	193 (100.0%)
	Durban	111 (63.4%)	64 (36.6%)	175 (100.0%)

Search Strategies	Cities	Yes	No	Total
Truncation	Lagos	59 (30.6%)	134 (69.4%)	193 (100.0%)
	Durban	50 (28.6%)	125 (71.4%)	175 (100.0%)
Proximity	Lagos	70 (36.3%)	123 (63.7%)	193 (100.0%)
	Durban	43 (24.6%)	132 (75.4%)	175 (100.0%)
Field or metatag search	Lagos	45 (21.7%)	148 (78.3%)	193 (100.0%)
	Durban	44 (25.1%)	131(74.9%)	175 (100.0%)
Limiting search	Lagos	41 (21.2%)	152 (78.8%)	193 (100.0%)
	Durban	44 (25.1%)	131(74.9%)	175 (100.0%)
Boolean operators	Lagos	37 (19.2%)	156 (80.8%)	193 (100.0%)
	Durban	33 (18.9%)	142 (81.1%)	175 (100.0%)

(see also Dorudolu and Ocholla, 2017)

### 3.6 What is the information self-concept level of teachers in secondary schools?

Table 6: Information self-concept level of teachers

Statement	Cities	SD	D	A	SA	Total
I can search information on the internet by using key words	Lagos	10 (5.2%)	9 (4.7%)	110 (56.9%)	64 (33.2%)	193 (100.0%)
	Durban	14 (8.0%)	43 (24.6%)	49 (28.0%)	69 (39.4%)	175 (100.0%)
I use the internet to communicate professionally with fellow teachers.	Lagos	14 (7.3%)	42 (21.8%)	84 (43.5%)	53 (27.5%)	193 (100.0%)
	Durban	20 (11.4%)	43 (24.6%)	54 (30.9%)	58 (33.1%)	175 (100.0%)
I use the internet to update in teaching	Lagos	14 (7.3%)	15 (7.8%)	103 (53.4%)	61 (31.6%)	193 (100.0%)
	Durban	13 (7.4%)	36 (20.6%)	55 (31.4%)	71 (40.6%)	175 (100.0%)
I find it difficult to use a computer unaided	Lagos	46 (23.8%)	59 (30.6%)	51 (26.4%)	37 (19.2%)	193 (100.0%)
	Durban	30 (17.1%)	54 (30.9%)	47 (26.9%)	44 (25.1%)	175 (100.0%)
I think I can talk to other teachers in online chat room.	Lagos	16 (8.3%)	27 (13.9%)	98 (50.9%)	52 (26.9%)	193 (100.0%)
	Durban	23 (13.1%)	59 (33.7%)	49 (28.0%)	44 (25.1%)	175 (100.0%)
I find using e-mail very easy	Lagos	8 (4.1%)	32 (16.6%)	85 (44.0%)	68 (35.2%)	193 (100.0%)
	Durban	12 (6.9%)	31 (17.7%)	65 (37.1%)	67 (38.3%)	175 (100.0%)
I can usually sort out any access problems I may have on the internet	Lagos	24 (12.4%)	36 (18.7%)	79 (40.9%)	54 (27.9%)	193 (100.0%)
	Durban	26 (14.6%)	44 (25.1%)	63 (36.0%)	42 (24.0%)	175 (100.0%)
I don't have any problems downloading relevant information for students for solving problems	Lagos	9 (4.7%)	44 (22.8%)	86 (44.6%)	54 (27.9%)	193 (100.0%)
	Durban	21 (12.0%)	40 (22.9%)	65 (37.1%)	49 (28.0%)	175 (100.0%)
I sometimes find using search engines like Google and Yahoo difficult	Lagos	56 (29.0%)	53 (27.5%)	47 (24.3%)	37 (19.2%)	193 (100.0%)
	Durban	44 (25.1%)	42 (24.0%)	47 (26.9%)	42 (24.0%)	175 (100.0%)



Statement	Cities	SD	D	A	SA	Total
I rarely have problems finding what I am looking for on the internet	Lagos	26 (13.4%)	66 (34.2%)	54 (27.9%)	47 (24.4%)	193 (100.0%)
	Durban	31 (17.7%)	35 (20.0%)	55 (31.4%)	54 (30.9%)	175 (100.0%)
I am confident of my ability to get information through the use of internet and other databases	Lagos	19 (9.8%)	32 (16.6%)	85 (44.0%)	57 (29.5%)	193 (100.0%)
	Durban	27 (15.4%)	28 (16.0%)	60 (34.3%)	60 (34.3%)	175 (100.0%)
I am always ashamed to seek for assistance in using computers and the internet	Lagos	69 (35.8%)	69 (35.8%)	22 (11.4%)	33 (17.1%)	193 (100.0%)
	Durban	60 (34.3%)	38 (21.7%)	33 (18.9%)	44 (25.1%)	175 (100.0%)

Key: Strongly Disagree = SD; Disagree = D; Agree = A; Strongly Agree = SA (see also Dorudolu and Ocholla,2017)

### 3.7. What are the metacognitive abilities of teachers in the use of information resources in classroom instruction?

Table: 7. Metacognitive abilities possessed by teachers

Metacognitive abilities	Cities	SD	D	A	SA	Total
Personal knowledge	Lagos	2 (1.0%)	7 (3.6%)	107 (55.4%)	77 (39.9%)	193 (100.0%)
	Durban	1 (0.6%)	6 (3.4%)	71 (40.6%)	97 (55.4%)	175 (100.0%)
Task and procedural knowledge	Lagos	164 (84.9%)	9 (4.6%)	20 (10.4%)	2 (1.0%)	193 (100.0%)
	Durban	117 (66.9%)	31 (17.7%)	4 (2.3%)	23 (13.1%)	175 (100.0%)
Strategic and declarative knowledge	Lagos	8 (4.1%)	14 (7.3%)	115 (59.6%)	56 (29.0%)	193 (100.0%)
	Durban	1 (0.5%)	14 (8.0%)	105 (60.0%)	55 (31.4%)	175 (100.0%)
Conditional knowledge	Lagos	8 (4.1%)	27 (13.9%)	114 (59.1%)	44 (22.8%)	193 (100.0%)
	Durban	4 (2.3%)	20 (11.4%)	97 (55.4%)	54 (30.9%)	175 (100.0%)
Planning ability	Lagos	8 (4.1%)	21 (10.9%)	88 (45.6%)	76 (39.4%)	193 (100.0%)
	Durban	2 (1.1%)	10 (5.7%)	93 (53.1%)	60 (34.3%)	175 (100.0%)

Key: Strongly Disagree = SD; Disagree = D; Agree = A; Strongly Agree = SA (See also Dorudolu and Ocholla, 2017)

## 4. Conclusions

The respondents' profile was diversified. A negative relationship was established between age and information literacy skills of teachers, which implied that older teachers were less information literate than their younger counterparts. This may be attributed to teachers' attitudes to information literacy development, and the information self-efficacy of teachers. On the other hand, the age factor may be due to a failure to ensure continuous learning for teachers that would encourage an incremental upgrade of their information literacy.

Teachers were undecided in their perceptions of the need for information literacy. Evaluation of the results of the hypothesis shows that teachers in Durban had a sharper perception of the need for information literacy than their counterparts from Lagos. Although quantitative results showed that the teachers in Lagos made more use of electronic resources than their colleagues in Durban, qualitative results contradicted this finding. No school libraries visited in Lagos had computer systems or Internet connection, unlike the school libraries in Durban. The hypothesis test shows that secondary school teachers in Durban used information resources more than teachers in Nigeria. The results also reveal that there was a significant difference in the way teachers from Lagos and Durban perceived the need for information literacy in favour of teachers from Durban. The results show that teachers in Durban more keenly perceived the need for information literacy than their counterparts in Lagos.

Evaluation of the metacognitive abilities of teachers – personal knowledge, strategic and declarative knowledge, conditional knowledge and planning ability – shows that teachers in both cities possessed metacognitive abilities. The positive relationship between the variables of metacognitive abilities and information literacy shows the possibility exists that the more the teachers possess metacognitive skills, the more the possibility of increasing information literacy among secondary school teachers in the two cities.

After further evaluation of the relationship existing between information literacy skills and metacognitive abilities of teachers (that is, personal knowledge, tasks and procedural knowledge, strategies and declarative knowledge, conditional knowledge and planning ability) using correlation analysis, it can be deduced that the metacognitive abilities of teachers have a significant positive relationship with information literacy skills. The values are as follows: personal knowledge ( $r=.194$ ,  $p<0.05$ ), task and procedural knowledge ( $r=.289$ ,  $p<0.05$ ), strategic and declarative knowledge ( $r=.209$ ,  $p<0.05$ ), conditional knowledge ( $r=.300$ ,  $p<0.05$ ) and planning ability ( $r=.182$ ,  $p<0.05$ ). This positive relationship between the variables of metacognitive abilities and information literacy shows the possibility exists that the more the teachers possess metacognitive skills, the more the possibilities are of increased information literacy skills among secondary school teachers in the two cities. Additional examination of the evidence of the analysis shows the likelihood of an increase in the personal knowledge of teachers. A 3.7% increase in information literacy would be achieved, while every increase in the task and procedural knowledge of teachers would result in an 8.4% increase in information literacy. On the other hand, for every increase in strategic and declarative knowledge, conditional knowledge and planning ability, a 4.4%, 9.0% and 3.3% increase respectively would be achieved in information literacy.

Analysis of the hypothesis on metacognitive abilities to establish a relationship between the teachers in the two cities shows no significant difference in the metacognitive abilities of teachers. Therefore, the null hypothesis is accepted that there is no significant difference in the metacognitive abilities of teachers in Lagos and Durban. The study recommends the following: 1) continuous training for teachers in information literacy is essential, 2) training of school librarians needs to be intensified so that schools employ qualified librarians, 3) governments need to make it mandatory-as in the case of universities/Higher education institutions- that no schools be established without approved library support systems in place or without school libraries, particularly in secondary schools, and 4) such policy should be supported with resources and infrastructure as well as knowledge of best practice in the sector. Find full report at [www.uzdSPACE.ac.za](http://www.uzdSPACE.ac.za)

## References

1. Durodolu, Oluwale Olumide. (2016a). "Technology Acceptance Model as a predictor of using information system' to acquire information literacy skills" *Library Philosophy and Practice* (e-journal). Paper 1450. <http://digitalcommons.unl.edu/libphilprac/1450>
2. Dorudolu Oluwale Olumide(2016b) *Information Literacy Skills and Personal Abilities of Secondary School Teachers in Lagos, Nigeria and Durban, South Africa*. University of Zululand(PhD Thesis) Online – [www.uzdSPACE.ac.za](http://www.uzdSPACE.ac.za)
3. Dorudolu, O. O. and Ocholla, D.N.(2017). (2017). Search strategy, self- concept and metacognitive skills of secondary school teachers in selected cities in Nigeria and South Africa. *LIBRI :International Journal of Library and Information Science*( in press).
4. Howard, S. K. (2013) Risk-aversion: understanding teachers resistance to technology integration. *Technology, Pedagogy and Education*. <http://dx.doi.org/10.1080/1475939X.2013.802995>
5. Online Nigeria (2015). The Second Military Era, 1984 – 1999. Retrieved on 16/10/2015, from <http://www.onlinenigeria.com/military/?blurb=680>
6. Online Nigeria (2015). The Second Military Era, 1984 – 1999. Retrieved on 16/10/2015, from <http://www.onlinenigeria.com/military/?blurb=680>