Assessing Information Literacy Skills among Undergraduate Students of University for Development Studies, Tamale, Ghana
By

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Abstract:

Purpose: *This study sought to analyse the information literacy skills among undergraduate students of the University for Development Studies, Wa-Campus.*

Design/Methodology/Approach: This was an exploratory study. The population of the study consists of students of the University for Development Studies, Wa Campus that are currently enrolled in various undergraduate programmes during the 2017/18 academic year. Primary data were gathered using a questionnaire from a random selection of 380 undergraduate students. The data were analysed using descriptive statistics and chi-square test of independence.

Findings: *The results indicate that majority of the respondents were not aware of the features of information literacy. However, students in the lower grades (level 100 and 200) showed more awareness of information literacy than those in the higher grades. While 63.68% and 75.8% of the respondents have indicated their awareness of copyright and plagiarism as ethical issues, adherence to these concerns have been found to be low. Besides, students are not conversant with information, sources, information retrieval and information use and this suggests low level of information literacy among them.*

Originality/Value: The study concludes that the role of the University in impacting information literacy skills in the students is yet to be achieved. It is therefore, recommended that management of UDS should take steps towards promoting information literacy skills among the undergraduate students.

Keywords: Information literacy, Information retrieval, Research ethics, User education, Academic libraries

Paper type: Empirical research

1.0 Introduction

The range of information resources available to end users today following advancement in technology is vast (Ifijeh, 2010). This necessitated the call for researchers to have high level of information literacy. Information literacy broadly deals with the ability to find, retrieve, analyse and use information (Association of College and Research Libraries [ACRL], 2000; Bothma *et al.,* 2014). This means that information literacy encompasses the need for information, availability of information resources, the need to evaluate information, recognition of the ethics and responsibility of use, and how to communicate or share ones findings. Information literacy is one of the major solutions to the information explosion, as it allows individuals to cope with this situation by providing them with skills to know when information is needed, where it can be located, how to evaluate and use it effectively and efficiently (Yeboah *et al.,* 2017). Other core features of information literacy include the ability to recognize a needed information and awareness of the law governing its use (Bothma *et al.,* 2014). Porter (2010) has therefore, noted that students need key skills to carry out successful information search. This fundamental reason is the fact that information literacy would enhance the students' research skills.

Today's fast-paced world is becoming increasingly characterized by technology- driven communication, which has transformed the world into a large global connected community with ever-increasing outreach of information and communication technology (ICT) (Danner & Pessu, 2013). According to Lim and Lee (2000) the use of computers is becoming more widespread in education and in the wider workforce including the digitization of libraries. This means that information literacy is not independent of information technology. As a result, academic

libraries have developed information literacy courses and are effectively integrating these into their universities' curriculum following the advancement in electronic resources use (Secker & Coonan, 2012). This suggests that the content of such courses should include among other things the effective use of information technology as an integral part of information literacy. In effect, technology plays an increasingly important role in people's lives, and this has implication of information literacy requirements (Danner & Pessu, 2013). As technology advances, its impacts on people's lives have become more visible and the dependency on technology has increased in time (Guclu, 2010). As a result several developed countries have chosen Information Technology (IT) as one of the comprehensive learning objectives to be used as a guide for education (Challa & Madras, 2014).

Gaining skills in Information Literacy (IL) is a fundamental aspect of the university experience for undergraduate students, and provide essential tools for life-long learning. As a result of the importance of information literacy skills' Abdullah *et al.* (2011) suggested that there is the need for curriculum to embed indirect computer related skills to students. A study conducted by Milliari *et al.* (2014) on information literacy skills of Greece High School students suggested that many high school students in Greece are accustomed to using computer in their daily live, that clearly shows Greece high school students are quite familiar with information technology. Sadly, at most postsecondary institutions, there is no formal requirement that faculty devote classroom time to information literacy instruction, nor any requirement that a librarian participate in its planning or delivery (Nilsen, 2012). Besides, Thirion and Pochet (2009) indicate that university libraries offer education and training in information literacy to undergraduate students without assessing their information literacy skills at the commencement of degree programmes. This is the case of the University for Development Studies where undergraduate students often find it challenging retrieving relevant information for their assignments because of low levels of information literacy. A related academic course on Bibliographic Instruction in Library Use was introduced in some faculties of the University for Development Studies with its content covering: library information and society, collection development, information organisation, and reference sources among others (Bello & Ibrahim, 2003). Bello and Ibrahim added that a new course on Language and Communication Skills was later developed that covers some elements of

information literacy. However, it is interesting to know that students rely on web resources that are not peer reviewed for the academic exercise. This suggests that they are not well informed about the sources of relevant materials, cannot retrieve relevant materials or having challenges presenting research output appropriately. The information literacy skills of first year students is therefore, questioned. This study therefore, sought to analyse the information literacy skills among undergraduate students of University for Development Studies (UDS), Wa-Campus. The specific objectives of the study were as follows:

1. To examine the extent of awareness of information literacy among undergraduate students of UDS
2. To analyse the level of information literacy among undergraduate students of UDS

2.0 Literature Review

One of the mandates of today's higher education is to develop a community of students with information literacy skills while pursuing their education and enable them to further extend it to their future workplace (Jessy *et al.* 2016). For instance, the recent technological advances in the fields of medicine and medical education have made computer literacy a vital competency for the present day medical undergraduate (Ranasinghe et al., 2012). Information literacy has today been associated with information and communication technology literacy which is increasingly referred to as the fourth literacy. This is necessary because most information for research is retrieved using information technology. However, it is neither as well understood nor as readily assessed as reading, writing, and arithmetic (Pérez & Murray, 2010). Despite the growing use of computers and software in every facet of the economy, transitioning from high-school to university can be difficult, and many university teachers feel students are often ill-prepared for the change regarding information use (Brinkworth *et al.* 2008). Most compelling evidence has cited on information literacy among university students perhaps because of its importance to academic purpose. Jessy *et al.* (2016) noted that information literacy instruction had a positive influence on effective learning of information literacy skills. Evidence shows that students of first grade were more literate which is attributed to the effect of the frequent use of computer (Taher & Ahmed, 2014). According to Nager and Atkinson (2016), workers with advanced computer knowledge who can use their experience to address and solve host of problems and challenges are poised to succeed in a wide variety of fields. Also, poor computer knowledge can adversely affect a student's

academic study, especially in the collation and analysis of data as well as the final quality of their research work (Ranasinghe *et al.* 2012).

In Spain , the attitude of social science student towards information competency revealed an overall low perceived self-efficiency which according Pinto *et al.* (2016) is the result of insufficient training. Jessy's *et al.* (2016) case study on assessing the effectiveness of information literacy instruction program has identified the actual level of awareness of information literacy among students about library website and resources, familiarity with the name of online databases in the health science field, knowledge about library catalogue, bibliographic databases, open access resources and proficiency in the use of Boolean logic. A preliminary study on first year students' perception of their computer- related skills show that, majority of first year students admitted were somewhat competent in desktop publishing skills and in internet skills (Abdullah et al., 2011). Yager *et al.* (2013) pointed out that the development of research and information literacy skills in first year students is essential, but challenging. Though most students have some reasonable computer skills at the start of their university studies, Lim and Lee (2000) learnt that the level of skill is not uniformly high. Similarly, Nilsen (2012), in his study, established that despite information literacy skills and instruction being important to students' disciplines, information literacy skills among lower-level undergraduate students is very poor.

In South Asia, Sri Lankan medical undergraduates were found by Ranasinghe *et al*. (2012) to have low intermediate level of information literacy. Similar findings were found in the study of Abdullah *et al.* (2011) on first year students' perceptions of their information literacy skills in Malaysia. They found out that though more than sixty percent students perceived their level of competence in internet application, ten percent of the students admitted that they do not possess any knowledge or skills in the application of spreadsheet, word processing and databases. Besides, Ali *et al.* (2010) discovered that diploma level students in Malaysian College seriously lack the necessary knowledge and skills to evaluate internet information, identify the most efficient search strategy as well as ethically use of scholarly resources. A recent test conducted by Cote and Milliner (2016) on Japanese university students' self-assessment and digital literacy show that almost all students had very low self-assessment of their digital skills and poor results in the digital test. Also, gender perception of ICT shows that female students have less confidence than male students in downloading files and adding bookmarks (Madigan *et al.,* 2007). The results of Baro and Fyneman (2009) support the fact that female students have relatively lower information literacy skills. Their empirical evidence form Niger Delta University points out that male students are more aware and use the information sources available in the university than their female counterparts. Evidence in support of this conclusion was that the male students were found to have been using internet facilities of the university library, used different search engines and utilized more of the CD-ROMs in the electronic library and hence are considered as more digitally literate. In contrast, European Commission's (2014) study on international computer and information literacy shows that on average girls outperform boys in computer and information literacy. While these contradictory positions on gender influence on literacy remain a debate among researchers, Konsar and Mahmood (2013) assessment of information literacy skills of first year undergraduate students in Pakistani university revealed no gender differentials in information literacy skills.

In the view of Doyle (2003), it is the responsibility of universities to ensure that all students acquire competencies in knowing how to learn, to formulate questions, to access potential sources of information, to evaluate what is found for accuracy, and use information effectively. Buer (2016) acknowledged this and hence maintain that students must go through some learning experience in other to acquire information literacy. In the view of Sraku -Lartey (2016), in this information age, all must ensure research scientists are information literate. Following these generally held views of recent scholars, Fiawotoafor and Agbeh (2016) assessment of the information literacy skills of College of Agriculture Education, University of Education, Winneba discovered that majority of the students have inadequate knowledge of the basic elements of information seeking process. Their study also reported students' inadequate skills to identify the most efficient search strategy as well as knowledge to evaluate and interpret information. The foregoing discussion suggests that many students in many universities of the world have weaknesses in information literacy. Hence first year undergraduate students of the University for Development Studies may share similar characteristics regarding their knowledge in information literacy.

A study conducted by Kennedy *et al.* (2008) on first year Australian university students'

experiences with technology shows that students must remain an important factor in informing how to use the array of technological tools such as computers, mobile phones, email at our disposal to design rich and engaging learning experiences for all students. However, when one moves beyond entrenched technologies and tools (e.g. computers, mobile phones, and email), the patterns of access and use of a range of other technologies show considerable variation. Similarly, in accessing international computer and information literacy studies among teachers, the European Commission (2014) discovered that there is a considerable variation across countries when looking at the percentage of teachers using computers when teaching. This study therefore, concludes that personal and social background plays a significant part in understanding student's variation in information literacy study. Again, Challa and Madras (2014) indicated that though majority of medical students had experience with computer and the internet, the frequency, pattern and purpose of use is variable. This suggests that such students may still have challenges in information literacy. Beyond this, Guclu (2008) stressed that computer skills of students' families also have an impact on students' computer experience which is in support of European Commission (2014) claim that social background plays a significant part in understanding student's variation in information literacy study.

Though most people, especially students, use the internet in their daily lives, Milliari *et al.* (2014) discovered that they use the internet to satisfy personal needs but have problem in locating and evaluation information for school work. In like manner, Lim and Lee (2000) detected that, more than one quarter of undergraduate students are not able to use the URL to locate Web sites, though most students claim to know how to use the computer and the internet. As result of the poor utilization of the internet, Malliari *et al.* (2014) see it necessary that information literacy be embed into secondary school education and also the need to create online information literacy tutorial.

Along similar line, Pinto *et al.* (2016) established that the main sources of learning and developing first year university students' information literacy competencies is through university training. A case study in assessing the effectiveness of information literacy instruction by Jessy *et al.* (2016) revealed that from the post evaluation study, information literacy program conducted by the library was effective and helped in improving participants' information literacy skills. This suggests that the library has automatically become a knowledge base for information literacy. As a matter of fact, many academic libraries identify information literacy (IL) instruction as one of their cores mandates (Nilsen, 2012). Furthermore, Nilsen (2012) revealed that the majority of post-secondary instructors identify librarians as either entirely or at least partially responsible for providing this information literacy (IL).

It has been a great medium for students to communicate and get information and has also transformed academic landscape using the internet (Limaye and Fotwenge, 2015). At Andhra University, Sasikala's (2011) assessment of information literacy among students revealed that students use the internet in accessing and retrieving information. This finding may suggest that students have access to variety of information sources but not necessarily that they are information literate. According to Nager and Atkinson (2016) computer science allows students to create models, develop hypotheses, test those hypotheses and revise their models. This means that such students can easily understand the content of research materials and hence be in a position to retrieve relevant information for their research purposes.

3.0 Methodology

This section presents the general procedures used to carry out the study. It specifically presents the research design, study population, sampling procedure, data requirements and sources, and the methods of data analysis respectively.

Research Design: A research design describes the general research strategy (Leary, 2001; Kothari, 2004; Creswell, 2009; Kumar, 2011). It comprises of the various steps that are adopted in studying the problem. Thus, the function of a research design is to ensure that requisite data in accordance with the problem at hand is collected accurately and economically (Kothari, 2004). Such a design is characterized by a smallest experimental error but supposed to yield maximal information and provides an opportunity for considering many different aspects of a problem. A flexible research design which provides opportunity for considering many different aspects of a problem is considered appropriate if the purpose of the research study is that of exploration. Thus, an exploratory study merely leads to insights or hypotheses. This study therefore, explored the information literacy skills among first year undergraduate students of the University for Development Studies, Wa Campus.

Population and Sampling: The population of the study consists of students of the University for Development Studies, Wa Campus that are currently enrolled in various undergraduate programmes during the 2017/18 academic year. The current population of students of the Wa

Campus is 7,409. This consists of 2,098 students from the Faculty of Integrated Development Studies (FIDS), 1,811 students from the Faculty of Planning and Land Management (FPLM), and 3500 students from the School of Business and Law (SBL).

The sample size was estimated using statistical procedure proposed by Miller and Browser (2003). The formula is given as:

$$n = \frac{N}{1+N(e)^2}$$

Where n = sample size; N= sample frame and e = error or significance level. According to Ahuja (2001), an acceptable error level traditionally is up to ± 0.05 or ± 0.10 (i.e., 5 or 10 percentage point). In this study, N = 7409, e = 5%. Hence the estimated sample size for the study is

$$\mathbf{n = \frac{7409}{1+7409(0.1)^2} = 380}$$

The sampling distribution according to faculties is shown in the Table 1 below

Table 1: Sampling Distribution of Respondents.

Faculty	Population of students	Sample size
FIDS	2098	108
FPLM	1811	93
SBL	3500	179
Total	**7409**	**380**

Source: Author's Construct (2018)

Stratified sampling technique was used to select the 380 students from the three faculties of the Wa Campus of the University for Development Studies. The sample size was distributed proportionally to the number of undergraduate students per faculty as shown in Table 1.

Data Collection and Analysis: The data were collected in the month of April, 2018 using a questionnaire. The main sections of the questionnaire include the background information of the respondents, awareness of information literacy skills, and their level of information literacy. The questionnaires were given to the respondents to self-administer once the population under study is literate. Copies of the questionnaire were distributed to the respondents and all of them were retrieved. The data were cleaned and coded into the SPSS spread sheet for analysis. The results were analysed using descriptive statistics and Chi-square test and presented using cross tabulations and charts.

4.0 Results and Discussion

This section presents the results and analysis of the study. The results cover major issues of the study such as the background characteristics of the respondents, students' awareness of information literacy, and the level of information literacy skills among undergraduate students respectively.

4.1 Background information of respondents

The background information of the respondents presented includes gender, level of study, and age. The distribution of these variables is shown in Table 2. The survey respondents consist of 60% males and 40% females from different year groups of the University. The table indicates that undergraduate students of UDS Wa Campus selected for investigation consist of 79 students in Level 100, 123 students from Level 200, 77 students from Level 300 and 101 students from Level 400 respectively. These represent 20.8%, 32.4%, 20.3% and 26.6% respectively. Besides, the minimum age of the 380 respondents is 18 years and the maximum is 28 years. The results also reported a mean age of 22.8 with a standard deviation of 1.9.

Table 2: Background Information

Variable	Frequency			Percent	
Gender					
Male	228			60.0	
Female	152			40.0	
Total	**380**			**100**	
Current year group					
100	79			20.8	
200	123			32.4	
300	77			20.3	
400	101			26.6	
Total	**380**			**100**	
Descriptive Statistics	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**

Age	380	18	28	22.83	1.977

Source: Field Survey (2018)

4.2 Students' Awareness of Information Literacy

The survey results covered an analysis of respondents' awareness of the qualities of an information literate person. It was discovered that 120 respondents representing 31.8% of the sample indicated that an information literate person should be able to know what information is needed. Beside, 166 respondents who denote 43.6% maintain that the ability to know where to search for information is a main requirement of information literacy. Table 3 also reveals that 60 respondents representing 15.8% of the sample indicated that the ability to differentiate the kinds of information is one of the qualities of information literacy. Moreover, 132 respondents representing 34.7% revealed that an information literate person should be able to analyse information, while 49 respondents representing 12.9% also indicated that an information literate person should be able to summarise academic information.

Table 3: Knowledge on the Qualities of Information Literate Person

Qualities	Frequency	Percent
Ability to know what information is required	120	31.8
Ability to know where to search for information	166	43.6
Ability to differentiate among different kinds of information	60	15.8
Ability to analyse information	132	34.7
Ability to summarise information	49	12.9

Source: Field Survey (2018)

The features of information literate person, as indicated by the respondents, are correct and are consistent with empirical literature such as ACRL (2000) and Bothma *et al.* (2014) who all associated information literacy to the qualities discovered and shown in Table 3. The frequencies of responses however, suggest that majority of the students at the Wa Campus of UDS are not aware of the requirement of information literacy because many respondents were not able to indicate their awareness of what constitute information literacy. This suggests that they are in themselves not information literate.

Further analysis was done on knowledge on the qualities of information literacy across different year groups. The expectation is that as the students' transit from one year group to another; their awareness of information literacy can improve. The null hypothesis is that knowledge on the qualities of information literacy is independent on student year group. A cross tabulation of knowledge on the qualities of information literacy and year group was generated and a chi-square test of contingency was performed as shown in Table 4

Table 4: Knowledge on the Qualities of an Information Literate Person Across Year Group

Qualities	Level/Year Group					Statistics	
	100	200	300	400	Total	χ^2	Sig
Ability to know what information is required	26 (21.7)	45 (37.5)	24 (20.0)	25 (20.8)	120 (100)	5.08	0.16
Ability to know where to search for information	42 (25.3)	46 (27.7)	43 (25.9)	35 (21.1)	166 (100)	3.08	0.37
Ability to differentiate among different kinds of information	17 (28.3)	22 (36.7)	14 (23.3)	7 (11.7)	60 (100)	6.31	0.09
Ability to analyse information	32 (24.2)	42 (31.8)	29 (22.0)	29 (22.0)	132 (100)	1.0	0.79
Ability to summarise information	15 (30.6)	18 (36.7)	9 (18.4)	7 (14.3)	49 (100)	5.2	0.15

Figures in parenthesis are percentages

Source: Field Survey (2018)

The results of the study suggest that there are variations in the level of awareness of information literacy skills among the students. For example, the ability to differentiate among different kinds of information had a Chi-square value of 6.31 and is significant at 10%. This means that there is enough evidence to reject the claim of independence of students' knowledge on the ability to identify relevant information. The frequency distributions suggests that students in the lower grades such as level 100, and level 200 have confirmed their awareness more than those at the higher levels.

From Table 4, with the exception of the ability to differentiate among different kinds of information, all the variables provided Chi-square values that are not significant. This suggests that there is no enough evidence to reject the claim of independence of students'

knowledge across different year groups of study. This means that the low awareness of information literacy is not influenced by the year group.

Further analysis required the respondents to indicate their awareness of some of the ethical issues regarding information access and use. The results indicate that 63.68% of the respondents indicated that they are aware of copyright issues regarding the use of research information. Besides, 7.63% maintained that they are aware of intellectual property rights, 12.89% cited licensing issues as ethical concerns regarding the use of research output. Finally, 75.8% indicated that they are aware of plagiarism as an ethical concern regarding the use of research or academic information. The distribution is shown in Table 5.

Table 5: Ethical Issues in the Use of Scientific Information

Ethical Issues	Frequency	Percent
Copyright	242	63.68
Intellectual property rights	29	7.63
Licensing issues	49	12.89
Plagiarism	288	75.8

Source: Field Survey (2018)

All the issues cited are ethical concerns and this suggests that the respondents have adequate knowledge regarding the regulations on the use of information. However, the frequencies of responses indicate that awareness level is low. In the work of Fiawotoa for and Agbeh (2016) majority of the students in the College of Agriculture Education, University of Education, Winneba, have inadequate knowledge of the basic elements of information seeking process. This is similar to the findings of this study since students lack the knowledge of some basic ethical considerations regarding the use of research information.

Majority (75.8%) of the respondents in Table 5 above cited plagiarism as an ethical concern

regarding the use of academic information. They were then required to describe instances of plagiarism. The results were obtained and reported in Table 6. From the table, 73.4% maintain that plagiarism is failure to acknowledge source of information after using it, 26.9% said that plagiarism is copying information verbatim without paraphrasing its meaning. Further evidence suggests that 4.4% of the respondents understand plagiarism as wrong citation in presenting information while 4.4% also refer to plagiarism as incomplete referencing of information source.

Table 6: Awareness of Plagiarism

Respondents understanding of plagiarism	Frequency	Percent
Failure to acknowledge source of information after using it	235	73.4
Copying information verbatim without paraphrasing	86	26.9
Wrong citation in presenting information	14	4.4
Incomplete referencing of information source	14	4.4

Source: Field Survey (2018)

Majority (73.4%) of the respondents understand plagiarism as failure to acknowledge source of information after using it. All the responses provided relate to plagiarism but the fact that many of the respondents were not able to cite them means that their information literacy level is low. This means that many students stand the risk of committing plagiarism in presenting their assignment in class or research work.

4.3 Level of Information Literacy

The level of information literacy among the students was analysed by examining their major source of relevant information for academic work, their understanding of the features of a reference academic materials, and the degree to which they can access, retrieve, and analyse academic information.

The results point out that the main sources of academic information to students include textbooks other than those from the library, the use of the internet (web) materials, old notes taken during lectures and the use of library resources. As shown in Table 7, 15.3% of the respondents rely much on textbooks for accessing their academic information, and 56.6% use the internet as their main source of academic information. Besides, only 5% rely on their notes and 23.2% rely on the use of library resources respectively.

Table 7: Respondents' Major Source of Relevant Information for Academic Work

Main Source of Relevant Academic Information	Frequency	Percent
Text books (other than from the library)	58	15.3
Internet	215	56.6
Old notes	19	5.0
Library	88	23.2
Total	**380**	**100**

Source: Field Survey (2018)

The results imply that many of the students rely on the use of materials from the web as in the case at Andhra University which was reported by Sasika (2011). However, the foregoing discussion suggests that such students have low levels of information literacy. This means that they are more likely not to retrieve relevant information from the interment sources. The smaller proportion that relies mostly on the library will have greater chances of accessing relevant materials. This finding confirms the work of Milliari *et al.* (2014) that students may use the internet to satisfy personal needs but have problem in locating and evaluating information for school work.

The respondents also shared their experience on the features of reference materials they consider before using it. The results, as shown in Table 8, indicate that the main feature often considered by the students before using such materials include whether the material has a tittle, an author, year of publication, place of publication, and whether the material has copyright issues. This suggests that the students are very careful in the selection of the right material to retrieve their academic information from. However, majority (over 50% in each case) is unaware of these features of good reference materials and that suggests low level of information literacy.

Table 8: Considerations before Using a Reference Material

Features of relevant materials considered by students	Frequency	Percent
Whether the material has a tittle/ subject area	170	44.7
Whether the material has an author	101	26.6
Whether the material has a year of publication	86	22.6
Whether the material has a place of publication (publisher)	11	2.9
Whether the material has copyright issues	53	13.9

Source: Field Survey (2018)

The features of relevant materials showed in Table 8 mean that students should be able to identify relevant information from a published document. Hence those that consider these features before retrieving their academic information will avoid the use of grey literature and use more of a peer- reviewed work. This characteristic represents a good quality of an information literate person.

The results of the survey provide evidence of the level of information literacy. The respondents were asked to indicate their level of information literacy using the variables provided in Table 9. The results point out that 11.1% of the students cannot search for the needed information at all, 27.6% cannot retrieve information, and 34.5% indicate that they are not conversant with the use of the library. Further evidence in Table 9 indicates that 8.2% of the respondents cannot analyse relevant information and 23.7% cannot acknowledge sources of information.

Table 9: Respondents' Level of Information Literacy

Qualities	Frequency	Percent
Not able to search for the needed information	42	11.1
Cannot retrieve relevant information	105	27.6
I am not conversant with the use of the library	131	34.5
Am not able to analyse relevant information	31	8.2
I am not able to acknowledge sources of information	90	23.7

Source: Field Survey (2018).

The results suggest that students have challenges with various aspects of information literacy. They are not able to search for information, not able to retrieve information and cannot use the library very well. Besides, the fact that some students are not able to acknowledge sources of academic information means that they may commit plagiarism in the use of information. The findings of some related studies are consistent with that of this study. For example, Abdullah *et al.* (2011) results point out that first year students in Malaysia perceived their information literacy skills to be low. They found out that though more than 60% students perceived their level of competence in internet application was high, 10% of the students admitted that they do not possess any knowledge or skills in the application of spreadsheet, word processing and databases. This means that many students across different countries have challenges in information search and rete rival. Jessy *et al.* (2016) however, found that students are familiar with library catalogue, bibliographic databases, open access resources and proficiency in the use of Boolean logic. This suggests that students in some areas are more familiar with the use of library resources than was discovered in this study.

Further analysis was done to establish whether the information literacy skills of students are independent of their level of studies/year group. This was done using Chi-square test of independence. The results, as shown in Table 10, revealed that with the exception of not conversant with the use of the library, the chi-square values are not significant for all the variables. This means that level of information literacy does not vary across year group except not being conversant with the use of the library. For example, 21.4% of respondents in level 100 are not conversant with the use of the library, 43.5% of level 200 students are not familiar with the use of the library and 17.6% of level 300 and 400 each are not conversant with the use of the library. The frequencies therefore, suggest that students in the higher grades such as level 300 and 400 are more conversant with the use of the library than those in lower grades such as level 100 and 200 respectively.

Table 10: Level of Information Literacy

Qualities	Level/Year Group					χ^2	Sig
	100	200	300	400	Total		
Not able to search for the needed information	8 (19.0)	13 (31.0)	7 (16.7)	14 (33.3)	42 (100)	1.21	0.75

Cannot retrieve relevant information	20 (19.0)	32 (30.5)	24 (22.9)	29 (27.6)	105 (100)	0.91	0.82
I am not conversant with the use of the library	28 (21.4)	57 (43.5)	23 (17.6)	23 17.6)	131 (100)	14.54	0.002
Am not able to analyse relevant information	6 (19.4)	10 (32.3)	8 (25.8)	7 (22.6)	31 (100)	0.7	0.86
I am not able to acknowledge sources of information	19 (21.1)	29 (32.2)	18 (20.0)	24 (26.7)	90 (100)	0.1	1.0

Figures in parenthesis are percentages. Source: Field Survey (2018).

Gnnnnnn. The results suggest that the information literacy of the students does not vary significantly across the different year groups. Library usage is however, different since students in higher grades were discovered to be more conversant with its use than those in the lower grades. This finings however, disagree with empirical findings of some studies. For example, the empirical result of Taher and Ahmed (2014) has shown students of first grade were more literate which is attributed to the effect of the frequent use of computer. Even though Taher and Ahmed (2014) results relate to the use of computers in promoting information literacy, the difference in this study could be due to the fact that the University for Development Studies Library does not require the use of enhanced computer technology because of inadequate logistics. As a result those in lower grades who could be familiar with computer literacy could not take advantage of those in the higher grades.

5.0 Conclusion

Literature on information literacy among undergraduates generally concludes that many students lack the very basic information literacy the capacity to identify relevant information needs, sources and retrieval. This suggests that they are most likely to violate ethical considerations of information usage. This implies that the role of the University in impacting information literacy skills to the students is yet to be achieved. An improvement in information literacy skills among students in higher grades implies that literacy skills of the students will improve as they transit from one grade to another.

skills. The results of this study do not deviate from this conclusion. Undergraduate students of the University for Development Studies generally lack Education and Agriculture that is offering the course. Management of the University For Development Studies should take steps towards promoting information literacy skills among the undergraduate students. This among other things should include development of courses in information literacy and its related issues, or those offering it should focus on the practical training of students on the identification of information sources such as the use of the library, analysis of information and adherence to ethical consideration. Students should be made to know the relevance of information literacy and encouraged to consider it as part of the academic curricular.

6.0 Recommendations

The following recommendations are hereby being made to enhance information literacy in University For Development Studies. It is recommended that information literacy should be and made compulsory for all Level 100 students of the University for Development Studies, since its only Faculties of

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