Information Needs as a Correlate of the Study Behaviour of University Undergraduates in Southwest Nigeria and the Conceptualisation of Study in the Digital Age

Esther Olusayo Akinleye, MLIS
Anchor University Library, Lagos

Taiwo Adetoun Akinde, PhD
Anchor University Library, Lagos

Abstract: *The study investigated the extent to which information needs influence the study behaviour of Library and Information Science undergraduates of the University of Ibadan and Tai Solarin University of Education. Survey research design of the correlational type was adopted. The total population summed up to 1,368. Multi-stage sampling technique was used to determine the sample size. In the first stage, purposive sampling technique was adopted to select the two universities while the second stage involved the stratification of the students based on their level of study. A random selection of a sample of 20% of the students was made thereafter. This gave a sample size of 274. It was found that the students needed information to write research project, prepare for examination and test, for course work and assignment, to enhance their lecture notes, derive information for health and wellness, leisure and general awareness. Furthermore, the students were found to study majorly between 1-2 hours daily and made use of lecturers' handouts, lecture notes and textbooks as resources during study. Majority of them were found to use personal timetable to guide their study. A positive relationship was found between the students' information needs and their study behaviour, but the effect of information needs on the study behaviour of the students was not significant. Consequently, it was recommended that governments should provide adequate funds in order to enable the procurement of high quality, current and adequate information sources that will meet the students' information needs. It was also advised that they should be provided with reliable and sustainable ICT infrastructure and empowered to develop their ICT skills to enhance their use of online and electronic resources while studying, and with that improve electronic learning practices; as study could no longer be conceived as reading and assimilating information in prints only. It was further suggested that all distractions to study*

should be checked, especially, the use of mobile phones, except the said phones are being used for teaching and learning purposes during lecture and study hours.

Keywords: information needs, study behaviour, university undergraduates, southwest Nigeria, digital age

INTRODUCTION

Information may be physical (printed) or electronic. It may be displayed through an array of data, text, images, sound, voice, codes, microfilm, computer generated microfiche and computer programs, application, courseware, software and databases that convey meaningful facts, ideas, conditions or knowledge, whether tangible or intangible through books, periodicals, pamphlets, banners, fliers, flexes, audio and video recordings (Njoku, 2004). Other information sources are Internet, telephone and people (friends, classmates, lecturers, librarians, parents, etc.). Information is mostly obtained through study.

People need information to obtain answers to specific questions which impact their lives. According to Belkin (1980), information needs arise when a person recognizes a gap in his/her state of knowledge and wishes to resolve that anomaly (an anomalous state of knowledge), thereby resolving ignorance or achieving academic success. Consequently, information represents an ordered reality about the nature of the world people live in, a cognitive experience or element that resolves the gaps between the known and unknown (Dervin & Nilan, 2006). To Nicholas (2000), a need is a psychological construct, closely related to other constructs such as motivations, beliefs and values. He argued that needs cannot be observable by a researcher or librarian much less by an automated "intelligent agent". He concluded that only indicators or signs of needs are observable.

Information need simply put is the quest to know when one discovers a gap in his or her knowledge and people, especially students, mostly meet their needs for information through study. Hence, the nature of the information needs of an undergraduate may influence his study behaviours, since most times, people search for information to follow up or act on what they know or are aware of, things or ideas they have read, heard about, or have experienced. The importance of having relevant information as and when needed to the study behaviour and hence, academic success of undergraduates cannot be over-emphasized, especially, in this Information Age. Over time, students have exhibited one form of behaviour or the other associated with finding information mostly to their academic needs.

Student study behaviour is the sum of all study actions a student engages in, including study habits, attitudes and strategies. It is related to experiences, objects, situations, environments and time of

study. Moreso, an important part of study activity is the actual amount of time spent in studying. Of the considerable amount of research devoted to study factors, the consensus of opinion seems to be that it is the actual amount and the quality of the time spent in study that distinguishes the successful student from the unsuccessful (Miller, 1990). Undergraduates' study behaviour includes how undergraduate students plan, organize, and execute their study activities.

The relationship between information needs and study behaviour is multifaceted, encompassing aspects such as resource selection, time management, and study strategies. The type of information students seek often dictates the resources they use. According to Eze, Nwafor and Chikezie (2019), students who require up-to-date information on current trends are more likely to use online databases and journals, while those needing foundational knowledge may rely on textbooks and lecture notes. This selective use of resources reflects how information needs shape study behaviour. The urgency and complexity of information needs also affect how students allocate their study time. Okafor (2022) found that students with pressing information needs, such as upcoming exams or project deadlines, are more likely to engage in intensive study sessions. Conversely, those with less immediate needs may adopt a more relaxed approach to studying, spreading their efforts over a longer period. Information needs also influence the strategies students employ in their studies. For instance, students who require a deep understanding of a subject may engage in more analytical and critical reading, while those needing to memorize facts may focus on repetition and note-taking.

Since 1970s, researchers have examined how students study and have explored factors that correlate with more effective study approaches. Many questions have been asked including: "How much time do students believe they should study", "How much time studying outside class should be expected of a typical student." "How much time do they actually study? It is generally believed that the more students study, the higher their grades will be. It is also believed that study strategies enhance academic achievement. It is also relatively clear that studying is individualistic in that, to some extent, each student studies differently. Studying is a very complex process and thus researchers are presented with the problem of what competencies, skills, attributes and other factor to measure. There are also a number of instruments that are marketed as study measurement tools (Biggs 2007; Brown & Holtzman, 2006).

A detailed analysis of some of the study skills that successful students possess was provided by Loftus (1973) in his longitudinal study of students attending the University of Newcastle. Word knowledge, note-taking ability and linguistic intelligence were some of the skills underlying efficient study habits and also eventual examination success. To Lavin (1995) efficient study habits are also associated with a favourable attitude toward learning in general. He opined that an important aspect of a student's attitude toward education is the value and importance he sees in or attached to study and/or what he has to learn.

Students who can effectively meet their information needs are found to be more likely studious and succeed academically while those who struggle to access or utilize resources may face challenges in their studies. Research by Usman and Alabi (2023) highlights that students' study strategies are often adapted to meet their specific information needs, which in turn impacts their study behaviour and academic performance. Similarly, in Ige and Salawu (2020), a strong correlation between students' ability to meet their information needs and their academic performance was shown. It was found that students who were able to effectively source, study and use relevant information tend to perform better in their exams and assignments. In contrast, students who faced challenges in meeting their information needs, such as limited access to quality and current academic resources, low information literacy and poor study habits, are more likely to experience academic difficulties.

As noted by Obasi and Nwachukwu (2018), the lack of access to up-to-date journals, books, and databases is a significant barrier to African students' meeting their information needs. These barriers can lead to lower grades, increased stress, and a lack of engagement with their studies. The disparities in access to information resources also raise concerns about inequity in student experiences. In a related research, Okeke and Chukwu (2023) opined that students from poor backgrounds are often at a disadvantage when it comes to meeting their information needs, which can lead to poor study behaviour and perpetuate existing inequalities in learning achievements and academic outcomes.

Few of the studies reviewed in this work found a significant relationship between undergraduates' information needs and their study behaviour. However, the researchers did not encounter any work on the influence of information needs on the study behaviour of Library and Information Science (LIS) undergraduates in Nigerian universities. Consequently, this study is an attempt to fill that gap in knowledge.

Statement of the problem
Information needs of LIS undergraduates are expected to be the drive and motivating factor to study, and thus a function of their study behaviour. It has been observed that undergraduates of Nigerian universities waste a lot of time during study, study haphazardly, may be distracted during study, may not have the right information sources and may learn nothing during study time. Effective and organised study behaviour is vital to student's future, not just academically but in everyday life since learning is life-long. Furthermore, it was found from observation that some students' failure in class examination may be due to lack of good study behaviour necessary for academic success and that students who use proper study habits can preserve knowledge for longer time.

Some researchers have underscored the effects of information needs on the study behaviour of the youths of secondary school age and undergraduates. Other group of scholars in an attempt to salvage the academics of the students at this stage investigated the effects of study behaviour on

academic performance. The gap that came very clearly here is that the researchers have not encountered a study on how the information needs of the undergraduates of LIS in Nigerian universities can determine their study behaviour or attitude to study. This study seeks to fill that gap by taking a survey of LIS undergraduates in two universities in Southwest, Nigeria.

Objectives of the study
The main objective of this study is to find out whether there is any correlation between information needs and the study behaviour of LIS undergraduates of Tai Solarin University of Education (TASUED), Ijagun, Ijebu-Ode, Ogun State and that of the University of Ibadan (UI), Ibadan, Oyo State. The specific objectives of the study are to:

- ascertain the information needs of undergraduates of LIS in TASUED and UI;

- highlight the study behaviours of undergraduates of LIS in TASUED and UI;

- verify the relationship (if any) between information needs and the study behaviour of undergraduates of LIS in TASUED and UI and

- determine how significant or otherwise is the influence of information needs on the study behaviour of undergraduates of LIS in TASUED and UI.

Research questions
To achieve the objective of the study, the following research questions were raised and answered:
- What are the information needs of undergraduates of LIS in TASUED and UI?

- What are the study behaviours of undergraduates of LIS in TASUED and UI?

- Is there any relationship between information need and the study behaviour of undergraduates of LIS in TASUED and UI?

Hypothesis

A null hypothesis was tested at 0.05 level of statistical significance:

Ho_1: Information needs have no significant influence on the study behaviour of undergraduates of LIS in TASUED and UI.

Scope of study
Emphasis of study was on the information needs and the study behaviour of LIS undergraduates in TASUED and UI during the 2018/2019 academic session when the survey was carried out.

Significance of the study
Information is very important in the development of any organization or individual. Information is used to describe man's accumulated knowledge in all forms and from all sources that could help the user to make rational and informed decision. As a result, students engage in seeking information in other to meet their information needs through the use of many information media and study strategies. This study will expose the authority to the various information needs of undergraduates and those information media they are attracted to and use for study.

This study provided a basis for informed decision making and recommendations that will improve the provision of relevant information media to meet the student-peculiar information needs and use. It will also encourage effective study strategies for positive study behaviour among undergraduates in Nigerian universities.

Information needs and the study behaviour of undergraduate students: A review of literature
According to Nicholas (2000), undergraduates essentially need information for fact finding (providing answer to specific questions), current awareness (keeping abreast of developments), research function (investigating a new field in depth), briefing (obtaining a background understanding of issues) and for stimulus (providing ideas to obtain stimulus). Information should be accessible by those who need it whenever and wherever they require it; it should be reliable and relevant in meeting the individual's needs. Therefore, for academic libraries to play key roles in information dissemination, librarians must develop comprehensive and effective formal information management strategies and procedures of their own. The concept of information needs compels librarians to recognize the critical importance of equality of access to information (Unwin, 2009).

University libraries are responsible for providing access to a wide range of academic resources to university undergraduates. According to Idowu, Ajayi and Olowolafe (2019), the effectiveness of libraries in meeting students' information needs is largely dependent on the availability of resources. Libraries that are well-stocked with up-to-date materials are more likely to positively influence students' study behaviour. The integration of technology in university libraries has also been a key factor in enhancing students' ability to meet their information needs. As noted by Afolabi and Odunola (2022), libraries that have embraced digital platforms and online databases have provided students with greater access to resources they will need in meeting their information needs, thereby influencing their study habits positively.

According to Olaniyi, Oyelade and Ojo (2018), institutional libraries in Nigeria face challenges such as inadequate funding, limited technological infrastructure, and insufficient staffing. Consequently, these issues hinder their ability to effectively support students in meeting their information needs. To improve the ability of Nigerian students to meet their information needs

and positively influence their study behaviour, therefore, they suggested the need for increased funding and technological infrastructure in academic libraries to ensure they are well-stocked with up-to-date physical and digital resources and adequate, ready and ICT-proficient staff. Agreeing to this, Ogundele and Adeola (2022) opined that well-supported libraries are better positioned to meet the evolving information needs of students and contribute to their positive study behaviour.

The ways that information is managed at both institutional and global levels have profound importance in knowledge creation by students, and more so, Information Communication Technologies (ICTs) have played a very significant part in changing how undergraduates perceive information. Globally, the advent of the World Wide Web (WWW) as a publicly available service on the Internet in 1990's created the opportunity for a fundamental shift in the way in which students accessed information and shared the knowledge that they created. In essence, the Web permits undergraduates to access and contribute to the information stored on computers across the world. The increased use of mobile phones and other smaller devices now also enables access without even the use of a computer. The Web is thus a very powerful tool in potentially democratizing and opening up information. However, this is only possible if three conditions are met: undergraduates have access to devices that enable them to use the Web; information relevant to their needs is actually uploaded onto servers with access to the Internet and their workable knowledge of search engines to enable them finds relevant information. The value of an academic library information system needs to be seen in terms of the uses that are made of the information and the subsequent impact of the information on students' study, activities and achievements.

Information is not sought for its own sake, but is sought to satisfy a particular need specially in learning related areas, development related concerns or for social and economic purposes. Librarians in universities tend to focus on disseminating information that they think their undergraduates need. There is need for them to understand who their students are and what they want. To provide adequate service, librarians need to know the nature of programs, location, learning characteristics and expectations of all potential users. This can be done by assessing the needs of the undergraduates' learning community for both electronic and traditional library resources, the existing library support, and surveying regularly undergraduates' library use, monitoring and evaluating both the appropriateness of their use of services and resources and the degree to which their unique and diverse needs are identified and met. The undergraduates' information needs assessment will go a long way to assist the institutional efforts in identification, prioritization and satisfaction of those needs.

Motivation for obtaining information, an aspect which triggers information needs and subsequent study behaviour patterns in university education, are of great interest in this study. Requirement to prepare and write theses, essays, proposals and assignments generate the need for information and many undergraduates reach out to the libraries as a place they rely on and trust to access quality information. Making notes to prepare for or supplement lectures also creates the need for searching

information among the university undergraduates regardless of their learning modes (Brophy, 2000). Preparation for examinations and other forms of academic assessment tests at the universities and the need to solve day-to-day practical problems are other activities which generate the need for information.

Information needs influence the seeking and exchanging of information and students' study behaviour and are dependent on ease of identification, location and access. Information needs, use and study behaviour are quite related to an individual's learning purposes for immediate and future use. Kakai, Ikoja-Odong and Kigongo-Bukanya (2004) revealed that undergraduates seek information mainly to do assignments, write term papers, prepare for exams, and carry out researches. It is possible that even the best system is not used to its full potential especially if there is lack of awareness of the system and invalid perception of the same. This is the situation which the non-traditional students may find themselves in, if they do not participate in the orientation and user education programmes organized by the university library management.

In the words of Bruse (2005), information need is a personal, psychological, sometimes inexpressible, vague and unconscious condition. He articulated four levels of information need that an individual passes through before he or she makes formal encounters with an information system or the services of information professional. These levels are: visceral need, conscious need, formalized need, and compromised need. Moreover, whether or not information needs are pursued depends on the individual's ability to identify their need and then to express the need in terms that are searchable by themselves or a third party (Davies, 2007). Chen (1980) remarked that the study pattern of an individual is determined by the individual's information environment, which consists of: background and characteristics of the individual; the nature and type of information need with which he/she is confronted; the type of information media available and accessibility of the information media and availability of information providers. The ability and capability of one or more information providers to respond to users' information needs may impact on the degree of satisfaction perceived by that individual.

The information field has developed a deepening understanding of the concept of information need and its role in study behaviour. Over time, the term information need has been used in a variety of ways. Aina (2004) opined that "every individual whether literate or not, has information needs, which are critical to survival". However, Baro, Onyenania and Osaheni (2010), in their research on the study behaviour of undergraduates of humanities in three universities in Nigeria, discovered that the undergraduates' highest information needs is the need for academic information, followed by the need for personal information with sports information being the least. Contrary wise, Fatima and Ahmad (2008) surveyed the study behaviour of Indian college students and revealed that half of the respondents seek for information purposely for career development followed by those who seek for information to solve problems, keep-up-to-date and to write an article or research paper. Here academic use of information comes last for these students. However, the authors opined that

this finding may be explained by the high number of the final year students in the survey as this category of students will be looking forward to and preparing for career and life after school.

Study behaviour, according to Amin and Shima (2007), is a basic activity and/or behaviour indulged in and manifested by all people when trying to understand or make a meaning, or further meaning out of the information at their disposal. It is an aspect of scholarly work of most interest to academic librarians who strive to develop collections, services and structures that facilitate information seeking and retrieval. In the words of Aina, (2004), the study behaviour of users depends on education, access to library and the length of time a user devote to information seeking. He went further to say that no matter how comprehensive the resources and services of a library are, it is important that the services are publicized widely so that users could seek information from the libraries and make use of the information sources contain therein. Baro, et al (2010) also revealed in their study that undergraduates used the following search strategies when seeking information: starting (using lecturers or colleagues), browsing library collections on the shelves, chaining (using references at the end of books), differentiating, extracting (using the card catalogue) and monitoring.

What of the quality of study? Or the quality of the time devoted because it is possible for a student to devote a lot of time to study but not do the actual study or not studying efficiently. Even the most successful students vary greatly in the amount of time spent in study, and some unsuccessful students claim that they spend quite a lot of time in private or group study. The efficiency of the study technique employed is probably the intervening variable. In addition, the degree of organization brought to bear on the study task may determine the degree of efficiency achieved. Miller (1990) maintained that the degree of organization employed will depends on the student's intellectual abilities.

Moreover, the nature of academic programmes plays a crucial role in determining the information needs of students. The curriculum demands of various disciplines dictate the types of information required, resource usage and students' study behaviours. For instance, students offering courses with a heavy emphasis on research such as postgraduate studies and science and engineering often need access to more diverse and specialized databases and journals, while those in the humanities might rely more on books and historical texts (Adesanya, Adebayo & Oladipo, 2019; Ibrahim & Daramola, 2020). The study by Ibrahim and Daramola (2020) found that students in research-intensive programmes are more likely to engage in extensive information-seeking behaviour, utilizing a broader range of resources including journals, databases, books, monographs and reference sources.

Furthermore, technological advancements have significantly and positively impacted on the ease at which information is accessed and utilized. The rise of digital libraries, online databases, e-books and e-journals has made a wealth of information readily available at the click of a computer

mouse, thereby significantly altering traditional study habits (Adesanya et al., 2019; Aina, 2021). The availability of up-to-date resources or otherwise may impact on students' ability to meeting their information needs. As digital resources are becoming increasingly important, students need the ability to access a vast array of digital resources from anywhere in the world with Internet connectivity. This can impact their study behaviour as more immediate and diverse information sources are provided with the use of educational technologies (Obasi & Nwachukwu, 2018).

This shift to electronic resources, according to Ogunleye, Adefolarin & Lawal (2020), also presents challenges, particularly in areas with limited Internet access or outdated technological infrastructure. Ogunleye et al. (2020) found that students in rural areas or from low-income backgrounds are less likely to have reliable Internet access; this may limits their ability to meet their information needs and influences their study behaviour negatively. The digital divide remains a persistent issue in Nigeria, affecting students' ability to access online resources as and when needed.

Students' varying levels of information literacy and individual learning styles are other factors that may also impact on their ability to meet their information needs as some students prefer visual resources while others may lean towards auditory learning materials (Okeke & Chukwu, 2023). To address the issue of information literacy, many academic libraries have introduced training programmes aimed at improving students' research skills. These programmes are designed to help students navigate the vast amount of information available and make informed decisions about their needs and hence, relevant study strategies and patterns. A study by Ojo and Oladipo (2021) found that students who participated in information literacy programmes organized by their institutional libraries were more effective in meeting their information needs and exhibited improved study behaviour.

In sum, extant literature agreed that students' information needs may influence their behaviour and attitudes towards study. The present work attempted to determine whether there is any correlation between information needs and the study behaviour of some samples of LIS undergraduates of Nigerian universities.

MATERIALS AND METHODS

This section describes the method adopted in solving the research problem. The study is correlational as it aims at discovering the relationship between the variables under study which includes the independent variable (students' information needs) and dependent variable (study behaviour). Hence, the survey research design of the correlational type was adopted for the study.

The population of the study comprises two public universities in Southwest, Nigeria that run LIS bachelor degree programme. They are UI and TASUED. The preliminary study indicated that there

are two hundred and forty-four (244) undergraduates in the Department of Library, Archival and Information Studies in UI as at 2018/2019 academic session while the total number of undergraduates in the Department of LIS in TASUED is one thousand, one hundred and twenty four (1124), making a total of 1,368 as shown in Table 1.

Table 1: **Study population**

S/N	UNIVERSITIES	POPULATION
1	UI	244
2	TASUED	1124
3	**Total**	**1368**

Table 1 displays the total population (1,368) of undergraduate students of LIS in the two universities under study.

The research adopted multi-stage sampling technique. In the first stage, purposive sampling technique was engaged to select the two universities. Wimmer and Dominick (2000) define purposive sampling technique as subjects selected on the basis of specific characteristics or qualities and thus eliminating those who fail to meet these criteria. The criteria for this selection are therefore: location in Southwest Nigeria, being public (owned by federal or state government) and offering Library and Information Science at bachelor degree level as at the time of study. The selected universities are therefore, UI and TASUED.

The second stage involved the stratification of the students in the Department of LIS in each university based on the level or year of study (that is, 100L, 200L, 300L and 400L for the four year bachelor degree programme) and this was followed by random selection of a proportionate sample of 20% of the students in each level. The sample size of 20% was considered appropriate for generalization based on Thomas (2003) recommendation. Thus, a sample of 20% which is 274 was seen to be ideal for the research population of 1,368 as shown in Table 2.

Table 2. **Sample size**

University	Level	Total number of students	Sample size (20%)
UI	100L	50	10
	200L	73	15
	300L	69	14
	400L	52	10
TASUED	100L	210	42
	200L	328	66
	300L	375	75
	400L	211	42
TOTAL		**1368**	**274**

Table 2 shows the sample size (274) for the study across students' level (or year) of study in the two selected universities.

This study employs both primary and secondary sources of information. The primary data were obtained through the use of questionnaire (the questionnaire for this study was a survey instrument containing a number of well-structured questions specifically to gather relevant data for the study) while the secondary data were obtained through published and unpublished sources of information such as textbooks, journals, newspapers, magazines and online materials.

The questionnaire elicited information from respondents on their information needs and study behaviour. The questionnaire was divided into three sections as follows:

      Section A: Demographic characteristics of the respondents
      Section B: Students' information needs
      Section C: Study behaviour

Each section consists of well-structured questions aimed at gathering relevant data for the study. It includes both open-ended questions and closed-ended questions.

The validity of the questionnaire was established by significant review of experts and colleagues in the fields of Library, Archival and Information Studies. Thereafter, the questionnaire was pre-tested to ensure its reliability using the Cronbach reliability test method.

The questionnaire was administered by the researcher and retrieved sequel to completion.
The first two research questions were answered using descriptive statistics (that is, frequency count, percentages, mean and standard deviations) to analyse the data collected in that regard while an inferential statistic (Pearson Product Moment Correlation (PPMC)) was used to answer the third research question and test the relationship between the variables in the research hypothesis at 0.05 level of statistical significance. Respondents' demographic characteristics were also described using descriptive statistics.

RESULTS AND DISCUSSION

This section presents and discusses the socio-demographic profiles of the respondents, the results of the study and its interpretation. The study examined how information needs (the independence variable) determines the study behaviour (the dependent variable) of LIS undergraduates in two universities in Southwest Nigeria. A total of 300 copies of the questionnaire were purposively administered to undergraduates of LIS of UI and TASUED and a total of 282 of the questionnaire were returned, which represented more than 100% of the total questionnaire needed (274). Consequently, 274 well-filled and perfect copies of the questionnaire were purposively selected

Publication of the European Centre for Research Training and Development-UK

for the analysis as shown in Table 3. This represents 100% of the sample size since the number is manageable.

Table 3. **Questionnaire distribution and responses**

University	No. of Students	No distributed	No returned	No used
UI	244	60	58	58
TASUED	1124	240	224	216
TOTAL	**1368**	**300**	**282**	**274**

Demographic information of respondents
This segment presents the descriptive statistics of respondents by university, gender, age, level of study and residence.

Table 4: **Frequency distribution of respondents by university, gender, age, level of study and residence**

Information	Frequency (N= 274)	Percentage (%)
Name of University		
UI	49	17.9
TASUED	225	82.1
Gender		
Male	93	33.9
Female	181	66.1
Age		
16 – 20 years	142	51.8
21 – 25 years	103	37.6
26 – 30 years	20	7.3
31 – 35 years	9	3.3
Level		
100 level	52	19.0
200 level	81	29.6
300 level	89	32.5
400 level	52	19.0
Residence		
Hostel	104	38.0
Off-campus	170	62.0

Table 4 shows that out of 274 respondents, 82.1% of them are students of TASUED and 17.9% of them are students of UI. This means that majority of the respondents are students of TASUED. The Table also displays 66.1% of the respondents as female and 33.9% of as male. This implies that female participated most in the study. Furthermore, 51.8% of the respondents shown are

Publication of the European Centre for Research Training and Development-UK

between the ages of 16 to 20 years, 37.6% of them are between the ages of 21 to 25 years, 7.3% are between age 26 to 30 years while only 3.3% of them are between the ages of 31 to 35 years. This indicates that majority of the respondents are between the ages of 16 to 20 years. In addition, 32.5% of the respondents are in 300 level, 29.6% of them are in 200 level while 19.0% are in 100 level and 400 level. This implies that 300 level students participated most in the study. Finally, 62.0% of the respondents resided off-campus while 38.0% resided in school hostel. This implies that majority of the respondents are not residents on the campus.

Research Question One: What are the information needs of undergraduates of LIS in UI and TASUED?

Table 5: Frequency distribution of the information needs of undergraduates in Library and Information Science

S/N	ITEM	YES	NO	Mean	St. dev.
1.	To write research project.	230 (83.9%)	44(16.1%)	1.16	0.37
2.	To prepare for examination and test.	257(93.8%)	17(6.2%)	1.06	0.24
3.	For course work and assignment.	263 (96.0%)	11(4.0%)	1.04	0.20
4.	To review literature on topics of interest.	200 (73.0%)	74 (27.0%)	1.27	0.45
5.	For general awareness or reading to enhance lecture notes.	252 (92.0%)	22 (8.0%)	1.08	0.27
6.	For leisure and entertainment	198 (72.3%)	76 (27.7%)	1.28	0.45
7.	To derive information on health and wellness.	206 (75.2%)	68 (24.8%)	1.25	0.43
8.	For sport and sporting activities.	138 (50.4%)	136 (49.6%)	1.50	0.50
9.	For learning.	248 (90.5%)	26 (9.5%)	1.10	0.29
10.	For self-development.	258 (94.2%)	16 (5.8%)	1.06	0.24
	Average weighted mean	**1.18**			

In Table 5, the information needs of undergraduates in LIS were revealed. In the order of weight and out of 274 respondents (100%), 96.0% of them revealed that they needed information for course work and assignment while 94.2% indicated that they needed information for self-development. Moreover, 93.8% stated that they needed information to prepare for examination and test, 92.0% indicated that they needed information for general awareness or reading to enhance lecture notes while another 90.5% of them showed that they needed information for learning. Furthermore, 83.9% revealed that they needed information to write research project, 75.2% indicated that they needed information for health purposes while 73.0% of them showed that they needed information to review the literature on a particular topic of interest. To play while working,

72.3% of them revealed that they needed information for leisure and entertainment while 50.4% indicated that they needed information for sporting activities.

By implication and in the order of importance, the information needs of undergraduates in LIS are: information needs for course work and assignment, self-development, preparation for examination and test, general awareness or reading to enhance lecture notes, learning, writing research project, for health purposes, to review the literature on a particular topic of interest, for leisure and entertainment and sporting activities.

Research Question two: What is the study behaviour of undergraduates of LIS in UI and TASUED?

Table 6**: Frequency distribution of the study behaviour (length of time, media and pattern) of undergraduates of LIS in the two universities**

S/N	ITEM	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	St. dev.
1	Less than one hour daily	53 (21.2%)	84 (30.7%)	79 (28.8%)	53 (19.3%)	2.46	1.03
2	1 – 2 hours daily	82 (29.9%)	133 (48.5%)	51 (18.6%)	8 (2.9%)	1.95	0.78
3	3 – 4 hours daily	48 (17.5%)	93 (33.9%)	107 (39.1%)	26 (9.5%)	2.41	0.89
4	5 – 6 hours daily	22 (8.0%)	50 (18.2%)	137 (50.0%)	65 (23.7%)	2.89	0.86
5	More than 6 hours daily	35 (12.8%)	41 (15.0%)	116 (42.3%)	82 (29.9%)	2.89	0.98
6	Use textbooks only while studying	84 (30.7%)	96 (35.0%)	68 (24.8%)	26 (9.5%)	2.13	0.96
7	Use lecture notes only while studying	161 (58.8%)	99 (36.1%)	8 (2.9%)	6 (2.2%)	1.49	0.66
8	Use lecture hand-outs only while studying	215 (78.5%)	55 (20.1%)	4 (1.5%)	0 (0.0%)	1.23	0.46
9	Use textbooks, lecture notes and hand-outs while studying	210 (76.6%)	63 (23.0%)	1 (0.4%)	0 (0.0%)	1.24	0.43
10	Use personal timetable to guide study	163 (59.5%)	93 (33.9%)	13 (4.7%)	5 (1.8%)	1.49	0.68
	Average weighted mean	**2.02**					

Table 6 shows the study behaviour of undergraduates of LIS; out of 274 respondents 51.9% of them agreed that they did study less than one hour daily, however, 78.4% agreed that they studied between 1 – 2 hours daily while 51.4% of them agreed that they did study between 3 – 4 hours daily. Besides, 73.7% of them disagreed that they did study between 5 – 6 hours daily. This implies that majority of the students studied between 1-2hours daily.

On the information media used, 94.9% of them agreed that they used only lecture notes while studying; with 98.6% of them also agreeing that they used lecture handouts only while studying. However, 65.7% of them affirmed that they only read textbooks while studying. Notwithstanding, 99.6% of them agreed that they used textbooks, lecture notes, and handouts, all together while studying. Moreover, 93.4% of them agreed that they used personal timetable to guide their study. The implication of this is that majority of the students used textbooks, lecture notes and handouts, all together as resources and personal timetable as a guide while studying.

Research Question three: What is the relationship between the information needs and study behaviour of LIS undergraduates in UI and TASUED?

Table 7**: Correlation matrix showing the relationship between information needs and study behavior**

Variables	Mean	SD	1	2	3
Study behaviour	20.1752	3.58343	1		
Information needs	11.7883	1.67258	0.158**	0.094	1

Table 7 revealed the relationship of the predictor variable (student information needs) with the criterion variable (study behaviour of undergraduates of LIS). Study behaviour of the LIS undergraduates positively correlated with information needs (r = .158). This shows that the more sorted, defined and met the information needs of undergraduates of LIS in these universities are, the more positive is their study behaviour, and vice versa.

Presentation of hypothesis

Hypothesis One: Information needs have no significant influence on the study behaviour of undergraduates of LIS in TASUED and UI.

Table 8: **The influence of information needs on the study behaviour of undergraduates of LIS in the two universities**

Variable	N	Mean	St. Dv	Df	r	r^2	Sig	P
Study behaviour	274	20.1752	3.58343	272	.158	0.025	0.094	>0.05
Information needs	274	11.7883	1.67258					

Sig. $\leq$ 0.05

Corroborating what was shown earlier in Table 7, Table 8 not only shows that there is a positive relationship between information needs and study behaviour of the undergraduates ($r_{(272)}$ = .158) (that is, the more the information needs of the students are met, the better their study behaviour and vice versa), but also shows the coefficient of determination (r^2 = 0.158 * 0.158 = 0.025). This implies that information needs accounts for 2.5% difference in the study behaviour of the

undergraduate of the two universities. Meaning that, information needs had positive but little or no significant effect on the study behaviour of undergraduates of LIS. This is further confirmed by 0.094 being greater than (>) 0.05. Hence, the null hypothesis is accepted, that is, the weight of the influence of information needs on the study behaviour of undergraduates of LIS in UI and TASUED was not significant. This implies that other variables not considered in this model may account for the remaining variance.

DISCUSSIONS ON THE FINDINGS

This research attempted to determine the information needs, study behaviour and the correlation between information needs and the study behaviour of undergraduates of LIS in two universities in Nigeria. On information needs, this study found that the LIS undergraduates of UI and TASUED need information to write research project, prepare for examination and test, for course work and assignment, to enhance lecture notes, derive information on health and wellness, for learning and self-development, for leisure and entertainment and general awareness. This finding agree with that of Nicholas (2000) who found that undergraduates essentially need information for fact finding, current awareness, research, briefing and for stimulus. Similarly, Baro, et al. (2010), in their survey on the study behaviour of undergraduates of humanities in three universities in Nigeria, discovered that the undergraduates' highest information needs is the need of academic information with the highest rating 233 (93.2 %), followed by the need for personal information 10 (4.0%), with sports information being the least 7 (2.8%). According to the study, undergraduates need academic information (to write their course assignment, seminar papers, prepare for their class discussions, examinations and tests, write their final year research papers, and such likes) more than any other information such as personal and sports information. Moreover, this finding corroborated that of Kakai, et al. (2004) who revealed that undergraduates seek information mainly to do assignments, write term papers, prepare for exams, and carry out researches. A study which this finding further substantiated is that of Brophy (2000) who found that students need information in making notes to prepare for or supplement lectures, examinations and other forms of academic assessment tests and the need to solve day-to-day practical problems.

However, contrary to the finding of this study that students need information majorly for academic purposes, Fatima and Ahmad (2008) surveyed the study behaviour of Indian College students and revealed that 30 (50%) out of the 60 respondents seek for information purposely for career development followed by those who seek for information to solve problems, keep-up-to-date and to write an article or research paper. Here, academics ranked last among the purposes for which those students sought information. This, the researchers opined, may depend on the level of study of the students surveyed as final year students of any college may think more of and seek for more information on career, as that will be their next line of action after graduation.

Majority of the undergraduates in this research used lecture handouts, lecture notes, and textbooks as resources for study, this confirmed the research studies of Adesanya, et al. (2019) and Ibrahim and Daramola (2020) who found that students offering courses in the humanities might rely more on books and historical texts. Moreover, majority of the students also use personal timetable to guide their study pattern. This is in line with the opinion of Usman and Alabi (2023) that students adapt personal study strategies to meet their specific and peculiar information needs. In other words, students' information needs may influence the strategies they employ in their studies.

Moreover, this study found that information needs positively related to study behaviour. This goes to validate findings of past research studies on the influence of students' information needs on study behaviour or strategies (Akinleye, 2019; Usman & Alabi, 2023). In addition, this study found that, although, a positive relationship existed between information needs and the study behaviour of the undergraduates of LIS in UI and TASUED, the influence of information needs on the study behaviour of the students was not significant. This implies that other independent variables not considered in the present study may account for the remaining variance in the students' study behaviour. For instance, Aina (2004) asserted that study behaviour of users may depend on the length of time a user devotes to information seeking, among others. Okafor (2022) also found that the urgency and complexity of information needs may affect how students allocate their study time. He revealed that students with pressing information needs, such as upcoming exams or project deadlines, are more likely to engage in intensive study sessions. Conversely, those with less immediate needs may adopt a more relaxed approach to studying, spreading their efforts over a longer period of time.

Though time was not related to study behaviour in this study, it was found that LIS undergraduates of UI and TASUED studied majorly between 1-2 hours daily. The researchers opined that this is inadequate in grooming students that ought to be highflyers academically and hence should be improved upon with their unbridled time for socials curtailed.

CONCLUSIONS

This section presents the summary of findings, conclusion, recommendations, implications, contribution to knowledge, and suggestion for further research.

Summary of the findings
    The following are the major findings of the study:
- Majority of the LIS undergraduates studied are students of TASUED, female, in 300 level, between the ages of 16 to 20years and resided off campus.
- The undergraduates of LIS of UI and TASUED need information to write research project, prepare for examination and test, for course work and assignment, to enhance lecture notes, for learning and self-development, to derive information on health and wellness, for leisure and entertainment and general awareness.

- LIS undergraduates of UI and TASUED studied majorly between 1-2 hours daily.
- LIS undergraduates of UI and TASUED made use of lecture handouts, lecture notes, and textbooks as resources for study and they used timetable to guide their study pattern.
- There was a positive relationship between information needs and the study behaviour of undergraduates of LIS in UI and TASUED.
- With its little influence, information needs was not a potent factor or strong predictor of the study behaviour of UI and TASUED LIS undergraduates.

Conclusion on the findings

It was found that information needs had positive relationships with the study behaviour of the LIS undergraduates of the UI and TASUED, but an insignificant contribution to the prediction of their study behaviour. In conclusion, it can be said that the more the information needs of LIS undergraduates in these universities are met, the more their study behaviour is enhanced, though the degree of enhancement in this study is found not to be that significant as at the time of study. It is therefore assumed that other variables not included in this model may account for the remaining variance in the students' study behaviour.

Recommendations based on the conclusion

Based on the conclusion of the study, the following recommendations are hereby made to enhance the study behaviour of LIS undergraduates in Nigerian universities:

- The federal and state governments in Nigeria should provide adequate funds to the Management of universities to aid the procurement of high quality, current and adequate information sources that will meet the information needs of LIS, among others.
- University-based Library Schools should be provided with reliable and sustainable ICT infrastructure in order to empower their students to develop their ICT skills to enhance their use of online and electronic resources while studying, and with that improve electronic learning practices among them in this Information Age; as study could no longer be conceived as reading and assimilating information in prints only.
- All distractions to study which may impact on students' study habits, attitude and behaviour should be checked by the university management.
- University Managements should enact laws making students' use of phones during lectures and study hours (especially in the library), an offence which will attract drastic punitive measures for the culprits, except the said phones are being used for learning purposes.
- Students should cultivate daily study habit and improve on the hours devoted for study per day. Making quality, regular and frequent study of higher priority than socials.
- Universities' ICT Infrastructure should also be made to be up and running with quick and rapid responses (by the university/departmental technical support crew) to students' call for help whenever technologies are deployed to source for information.

- Regular and sustained power and systems' backups should be provided to enable students' sourcing and storing relevant information and data to meet their individual and peculiar learning, research and development needs.
- Computer/ICT laboratories, classrooms, lecture theatres, university libraries and hostel accommodations should also be made very conducive, enabling and welcoming to encourage students' consistent, regular, sustainable and improved study behaviour and hence, enviable academic achievements.

Implication of the study

Information needs positively correlated and did influence the study behaviour of undergraduates of LIS in TASUED and UI, though the weight of influence is not presently significant. The implication of this for the university managements and other stakeholders is that for the study behaviour of these LIS undergraduates to be significantly improved upon, good and quality information sources will have to be provided and made available and accessible to meet students' information needs promptly (either in the physical or electronic libraries) without allowing room for frustrations. The information sources should be in accessible format while the information content should be valid, reliable, current, adequate and relevant in order to meet the students' curricular and extracurricular information needs while the learning, studying and living environments should be made more enabling and conducive. With these suggested improvements, the students' information needs will be seamlessly met and their study behaviour (and consequently their academic achievements) improved, all things being equal.

Contribution to knowledge

The study has been able to ascertain a positive relationship between information needs and the study behaviour of undergraduates of LIS in two public universities in Southwest, Nigeria. Moreover, the influence of information needs on the study behaviour of the students was found to be positive but insignificant.

Research limitation

The research population is disproportional. In other words, the proportion of the students of TASUED (a state university) in the study is greater than that of UI (a federal university). This may be due to the need of state universities in Nigeria to generate increased funding through greater student enrollments while federal universities enjoy better subventions from the federal government coffers and grants from educational development funds established by the federal government. Consequently, the results of this study may reflect more on the situations confronting students of TASUED than that of UI.

Suggestions for further research

This study focused on LIS undergraduates in two Southwest Nigerian universities. It is recommended that further studies should involve more comparative and larger samples of students

from more universities, other fields or disciplines, institutions of higher learning other than university and geographical locations other than Southwest, Nigeria.

REFERENCES

Adesanya O, Adebayo O, Oladipo A (2019). Curriculum demands and information needs of Nigerian university students: A comparative study. International Journal of Academic Research in Education and Review 7(1): 12-25.

Afolabi M, Odunola T (2022). Technological integration in Nigerian academic libraries: enhancing access to information resources. Library Hi Tech News 39(4): 20-34.

Aina LO (2004). Library and information science text for Africa. Ibadan: Third World Service Ltd. Pg. 67.

Aina L (2021). The impact of digital resources on study habits of Nigerian students. Journal of Information Science and Technology 19(3): 132-148.

Akinleye EO (2019). Information needs, use of social media and study behaviour of Library and Information Science undergraduates in two universities in South-west Nigeria. Unpublished M.Sc. Dissertation. Department of Library, Archival and Information Studies. University of Ibadan, Ibadan. Nigeria. 90p.

Amin Y, Shima Y (2007). Information need and information seeking behavior of professionals at an Iranian company. Library Students Journal, 2. Available at: https://www.librarystudentjournal.org/index-php/lsj (Accessed January 10, 2018)

Baro EE, Onyenania GO, Osaheni, O (2010). Information seeking behaviour of undergraduate students in the humanities in three universities in Nigeria. South African Journal of Libraries and Information Science, 76(2): 109-117.

Belkin NJ (1980). Anomalous states of knowledge as the basis for information retrieval. The Canadian Journal of information Science 5: 133-43. https://tefkos.comminfo.rutgers.edu/Courses/612/Articles/BelkinAnomolous.pdf

Biggs J (2007). Using constructive alignment in outcomes - based on teaching learning: teaching for quality at university (3rd ed.). Madenhead: Open University Press. Pp. 50-63

Brophy JE (2000). Teaching: International Bureau of Education Practice Series (No 1). Geneva: Switzerland International Bureau of Education. ERIC Document Reproduction Services. Available online at: https://inee.org/sites/default/files/Teaching.pdf

Brown TA, Holtzman DH (2006). Information privacy research: An Interdisciplinary Review. Pg. 35.

Bruse H (2005). Personal, anticipated information need. Information Research. 10 (3). Available at http://www.informationr.net/ir/10-3/paper232.html (Accessed

March 10, 2018).

Chen C (1980). Citizen information seeking patterns: A New England study. Available online at: http://web.simmons.edu/~chen/cc/publicat.htm

Davies, K. 2007. The information-seeking behaviour of doctors: A review of the evidence. Health Information & Libraries Journal, 24 (2): 78-94. https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/j.1471-1842.2007.00713.x

Dervin B, Nilan M (2006). Information needs and users. Annual Review of Information Science and Technology. 21: 3-33.

Eze C, Nwafor G, Chikezie A (2019). Resource selection and study behavior: an analysis of Nigerian university students. Journal of Educational and Social Research 9(2): 96-110

Fatima N, Ahmed N (2008). Information seeking behaviour of the students at Ajmal Khan Tibbiya Aligarh Muslim University: A survey Annals of Library and Information Studies, 55: 141-144.

Ibrahim H, Daramola S (2020). Research-intensive programs and information needs: the case of Nigerian postgraduate students. African Journal of Library and Information Science 30(1): 27-41.

Idowu F, Ajayi O, Olowolafe A (2019). Academic libraries and the provision of information resources: Challenges and prospects in Nigeria. Library Philosophy and Practice, 1-15.

Ige A, Salawu T (2020). Meeting information needs: the correlation with academic success among Nigerian students. International Journal of Library and Information Science 12(2): 23-35.

Kakai M, Ikoja-Odong R, Kigongo-Bukeng IMN (2004). A study of the information seeking behaviour of undergraduate students of Makerere University, Uganda. World Libraries 14 (1): 544-564.

Lavin MA (1995). Three essays on studying styles. Washington, D.C.: Better Word Books, MIT Press. Pp. 40-48.

Loftus EF (1973). Activation of semantic memory. The American Journal of Psychology 82: 331-337.

Miller MD (1990). The Assessment of clinical skills/competence and performance. Waterloo: University of Waterloo Publishers. Pg. 4. Available at: https://journals.lww.com/academicmedicine/abstract/1990/09000/the_assessme nt_o_clinical.45.aspx

Nicholas D (2000). Assessing information needs, tools, techniques and concepts for the Internet age. E-book. London. Pp. 160-162. https://doi.org/10.4324/9780203403389

Njoku ZC (2004). Effective use of models for science and technology instruction. Journal of Science Teachers Association of Nigeria, 39(182): 43-50. Available online at: https://scholar.google.com/scholar?hl=en&as_sdt=0,5&cluster=173565714998591 89901

Obasi N, Nwachukwu, E (2018). Access to academic resources in rural Nigeria: Barriers and solutions. Journal of Rural Education and Development 13(4): 56-70.

Ogundele R, Adeola F (2022). Supporting academic libraries in Nigeria: the role of funding, staffing, and technological infrastructure. Library Management 43(2/3): 148-162.

Ogunleye J, Adefolarin B, Lawal R (2020). The digital divide and information access in Nigerian higher education. African Journal of Information Systems 12(3): 45-61.

Ojo A, Oladipo B (2021). Information literacy programs in Nigerian universities: assessing effectiveness and student outcomes. Journal of Academic Librarianship 47(4): 10-36.

Okafor N (2022). Time management and information needs: A study of Nigerian university students. Journal of Educational Research and Practice 14(1): 89-105.

Okeke U, Chukwu I (2023). Equity in education: addressing disparities in access to information resources in Nigeria. International Journal of Educational Development 24(2): 43-58.

Olaniyi A, Oyelade O, Ojo F (2018). Challenges of academic libraries in Nigeria: A case study of federal university libraries. Journal of Library Administration 58(1): 77-90.

Thomas DR (2003). Blending qualitative and quantitative research methods in theses and dissertations. Thousand Oaks: Crown Press. 240p. Available online at: https://doi.org/10.4135/9781412983525

Unwin T (2009). Information and Communication Technology for development. Cambridge: Cambridge University Press. Pg. 60.

Wimmer DD, Dominick JR (2000). Mass media research: An Introduction (9th ed). Belmont: Wadsworth Publishing Co. Pp.223 -321.

Usman K, Alabi M (2023). Study strategies and information needs: Implications for academic performance in Nigerian universities. Journal of Higher Education in Africa 21(2): 61-75.