EXAMINATION OF THE IMPLICATION OF INFORMATION PROCESSING ON THE LIBRARY USERS LEARNING COMPREHENSION/SATISFACTION.

Obia Gopeh Inyang
University of Calabar, Nigeria, obiainyang@gmail.com

Juliana Agwunobi
University of Calabar, Nigeria., Julianaagwunobi@gmail.com

EXAMINATION OF THE IMPLICATION OF INFORMATION PROCESSING ON THE LIBRARY USERS LEARNING COMPREHENSION/SATISFACTION.
BY

INYANG, OBIA GOPEH (CLN/PhD)
UNIVERSITY OF CALABAR LIBRARY
ORCID: 0000-0003-2360-7633.
Obiainyang@gmail.com/Obiainyang@yahoo.com

&

AGWUNOBI, JULIANA NWAKAEGO (CLN)
UNIVERSITY OF CALABAR

ABSTRACT

The paper looked at Information Processing Theory's implications for the Library users' learning satisfaction. The study discussed the nature of information and asserted that the dissemination of information empowers learning since the world is increasingly becoming information-based. It looked at information processing as the standard for understanding and satisfactory learning against memorization, leading to poor academic performance as it does not allow what the learner has learned to be part of him. The study also discussed that the instructor, facilitator, teacher, lecturer, and users have a role to play in processing information that improves learning. What remains essential is the fact that users of information must be equipped with the skills, services the library renders to its users to ensure they are satisfied and methods that allow them to continually be relevant and viable in the face of changes that could be uncertain and enormous. For an enhancing success story to be recorded, issues that pertain to educational backwardness like strikes incidences that encourage ad-hoc teaching and learning should be addressed properly as this is a very significant militating factor on the scheduling of educational programs. The discussion concluded by presenting the human mind as having the capability to aid understanding, storage, and retrieval of learning materials, which are properly processed by the learners (library users'). Data were obtained by administration of 600 copies of questionnaire to final year students at the social Science library of the Readers Services while preparing for their Examination after resumption from COVID-19 pandemic crises/ ASUU strike. Accordingly, 600 questionnaire copies were distributed to final year students of Accounting, Banking & Finance, Economics, Education, Geography, and Sociology. Only 467 usable copies were returned and analyzed for this descriptive survey study. The study revealed that out of the 467 respondents, 229 (49.03%) were males, and 238 (50.96%) were females. Results of the study revealed that respondents were aware of Information processing theory. From table 3 (objective 2), respondents have applied it to their studies without knowing the name as it exists; thus, the disagreement indicated that some students applied it differently from the ones listed in the study options. The study also revealed that they have benefited from it. The study concludes that users' who applied this theory to their learning were satisfied when compared with previous methods. It was recommended that more research be carried out in this regard to allow respondents to point out other ways in which they have applied this information processing theory.

KEYWORDS: Information processing theory, Library users, Effect of theoretical postulations, actual learning, Brain processing, Effect of Strike incidences, Learner psychology, Information updates-the way forward.

INTRODUCTION AND OVERVIEW

The new Webster's Dictionary of the English **Languag**e (2003) defines Information as the communication of news, knowledge, or facts told or communicated. Processing is taking a

series of acts or changes proceeding from one to the next, conditioning something as part of a development, and a theory can be defined as a statement or group of statements established by a reasonable argument, which is based on new facts, intended to explain a particular fact, event or phenomenon. The explanation for which specific approaches are still needed, which appears to be reasonable. It could be regarded as part of art or science that deals with general principles and methods as supposed to practices, as rules, which are of great assistance to solving day-to-day problems and help in the advancement of a discipline—inferring from the above, therefore, the researchers' present Information Processing theory as a learning theory meant to give learners updates on how best to set study methods to meet users' puzzles after accessing the information resources organized by the library to the extent of guaranteed satisfaction (where learning has taken place). It involves the connection of data, series of actions, or operations deliberately undertaken to assimilate information presented for understanding and decision-making, which, therefore, cannot be discussed without learning and memory.

Traditionally, learning had been based on Stimulus-Response (S-R) by the behaviorists, but newer ones on the cognitivism view and a concern for social change supersede it. The emphasis now has shifted to restructuring knowledge and understanding rather than a change in behavior. For example, they are learning for problem-solving rather than memorization. This is because people, regardless of profession, occupation, environment, religion, and personality, have been interested in learning which is empowered by the spread of information thus;, information has been given different definitions by scholars depending on how it is focused at a particular point in time. It is generally believed that information in libraries could go a long way in molding up the youths, upholding their aspirations and achievements since it is the gap between the developed and under-developed societies (Iwe, 2008). A recent study by Inyang and Ekpang (2019) revealed users' perception of the need to market the library to include; to enlighten users' on the contemporary relevance of Information and Communication Technology (ICT) & manuals (97.9%), improvement of interpersonal relations (95.8%), for users' to have a fearless knowledge in usage and satisfaction of their puzzles (93.9%) and for a conducive environment (91.4%), and to ascertain users' information needs in this era (90.7%). All these points to the learning that encourages literacy for the student as he/she critically analyses information accesses to synthesize and create something new, which is the processing aspect of the learning pursuit.

The use of information depends on the availability and the understanding of the format in which it is presented to users, regardless of group differences. In Kermally (1996), information plus intelligence is equal to knowledge. Luas (2000) defined information plus the expertise to be equal to knowledge. The implication of these definitions of Kermally and Luas reveals that they regard information as the basics for knowledge acquisition. Basically, the resources that make for better performance, productivity, and satisfaction in the knowledge economy are information that needs to be grown, nurtured, managed, and supported in a library or in the organized sector. The provision of information to users in one of the library's basic functions, so in a library setting, information refers to the content of the book and non-book materials or information databases. Hence, as it is expected of technicians to improve upon their skills, adopt new technology, and acquire knowledge, so also is the expectation on users in the academic environment to acquire skills that would enable them to adapt to modern librarianship to become self-reliant in information searches that satisfy their puzzles.

The purpose of an academic library is to support the University's myriad of functions in teaching, learning, and research through proper access to information. The nature of information is that it changes fast, making the certainties of today become tomorrow's absurdities, creating opportunities for continued researches to answer for the why, when, and how relating to issues constantly focusing on acquisition, processing, storage, dissemination of information to the needed clientele and now revealing information meant to influence users' psychology as they must also learn how to process the skills taught them, to move with time. Much as it is important to note that no library can satisfy all its users at all times, it is expected and necessary to state that those libraries that can provide users with whatever they want (access to information resources and empathic services), achieve higher levels of users satisfaction. Hence, a library user is the most crucial component which library processes revolve around. He is a learner whose satisfaction can help change the anomalies of yesterday, impact today, and influence the development of tomorrow in any organization, society, or nation.

Various theoretical and philosophical differences regarding learning have existed over the years, and some convergence of thinking has occurred. However, this entry is geared towards continuing the evolution of learning theory and research especially relating to learning in an educational setting. This emphasis is because the concern for change is still evident for learning, but the mark for success now shifts to restructuring knowledge and

change in understanding rather than memorization of learning material. However, despite the efforts through funding, direct purchase, inter-library loan, exchanges, and donations that have increased library resources over the years to encourage users access to information, many users studies (Kakai, et al 2004; Ssendikadiwa,2006; & Agyen-Gyasi, 2008) revealed library users inabilities to properly use the library in a way that would gear them towards satisfaction.

In the bid to proffer a solution to this scenario that is fast becoming a norm, Alegbeleye (1996) held that these series of surveys might serve as to console custodians who may otherwise have the erroneous impression that their problems were peculiar and also spur nations /institutions to carry out researches in the direction of improving and preserving standards. Again, Obokoh (1983) encouraged Librarians not to be afraid to thread on fresh grounds to solve their unique problems.

To properly integrate into this new arrangement, the authors borrow ideas from Cognitive Psychology and Education in general since knowledge is interrelated. It is hoped that this will serve as a link between Library and Information Science, psychology, and Education and bridge the communication gap between disciplines. In addition, to use the study results to influence the emergence of library users who will demonstrate a high level of basic competence in dealing with complexities in and around the educational system that will lead to permanent knowledge acquisition. This is because it will foster the purpose of Libraries' existence in providing quality. Every complex event embeds information in the user's brain and links what is being learned to the rest of the learner's current experience, past knowledge, and future behavior.

Caine and Caine (1994) called this type of learning "brain-based" (B B) learning while Solusa (2011) revealed that brain-based learning had hatched a new discipline entitled by some as Educational neuroscience, or by others as Mind, Brain and Educational Science.The B.B. learning is based on the structure and functioning of the brain. It implies that learning will occur as long as the brain is not prohibited from fulfilling its normal processes. This learning approach emphasizes that users perceive and process information in very different ways. The learning styles imply that how much users learn has more to do with whether the educational experience is geared towards their particular learning style than whether or not they are brilliant. Thus, as users process information, they develop critical

skills that bring out the real meaning from core knowledge that make sense to the library users.

In line with this tinkering, therefore, this exposition is geared to expatiate on Information processing theory and the library users as learners, with the view to stimulate their study method, to spur understanding and improve learning outcomes for information sourcing and satisfaction.

OBJECTIVE: The objective of this study is to

1. Examine if students are aware of information processing theory existence

2. Determine if they have ever applied it to their learning processes

3. Find out if they have benefited from applying this theory during their learning sessions.

STATEMENT OF THE PROBLEM

From ancient times through this contemporary period, Students from any School level can answer these series of questions in the same way without prompting;

QUESTION 1:   How do you study?

ANSWER: I listen to the teacher, I read, I take notes and I memorize.

QUESTION 2:   Why do you study in such a way?

ANSWER: To pass my test and Examination.

The second answer is devoid of class discussion as it is often observed, the fretfulness that goes with the presentation of seminars, term papers, or project defense by students (library users) who reveal their inabilities in these areas.

Parents, teachers, educational authorities, and even the Government express growing concern over the quality of the school products sent to the society as human resources. They lament how, with a difficult economic situation, parents stake their hard-earned money to send their children and wards to school but are staring on the face with poor academic performance. The Government also claims to have employed well-qualified teachers with an improved curriculum. There has been a general dissatisfaction with the results from our

educational system, but the impediments displayed in these unsatisfactory results are not given the right of place. For instance, do students (library users) find their lessons interesting? Are they given the proper environment to process their information (study materials) to obtain knowledge, or do they just read to pass an examination but forget afterward? Educational impediments, which result in prolonged strikes incidences, aggravating ad-hoc teaching and learning just for writing Examination need be curtailed if success is to be achieved.

RESEARCH QUESTIONS

1. To what extent are students aware of information processing theory' existence

2. To what extent have they applied it to their learning processes

3. To what extent have they benefited from applying this theory during their learning sessions?

REVIEW OF RELATED LITERATURE

The literature review is carried out on two broad headings. These include:

1. Libraries and their users,

2. Information processing theory with many subheads.

Libraries and their users: Libraries, regardless of type, are established with the aim of providing information resources and services to meet the users' information and knowledge needs in their various disciplines. This requires that the library provide the actual resources and services that will satisfy the needs of its users whether academic, public, special, private, or school; as the very existence of libraries is dependent on users satisfaction. This is in line with Block (2010) who upheld that a successful library informs users about services and convinces them to use such, as is the case with this research undertaking. Aina (2004) defined "users" as a term broadly used to include all those who make good and effective use of the services offered by a library, and the term encompasses various terms such as patrons, clients, readers, customers, consumer, Etc. This involves those who have possessed Library literacy skills that had been the foundation of literacy skills before the advent of information technologies. Library literacy requires that students know the different divisions of a library, the jobs performed therein, what it houses concerning discipline content, movement chart from acquisition to processing and use in the reference /readers' services divisions. It also

includes learning the rudiments of the primary traditional skills of using different library resources with rules and regulations binding users' at different institutions, the use of the manual catalogs with this new Online Public Access Catalogue (OPAC), to access information and method of using books from reserve collection or how books are recalled after being borrowed. Aina further categorized users into pupils, children, students, adults, professionals, researchers, lecturers, policymakers, planners, artisans (urban and rural-based), hearing and visually handicapped, and physically handicapped.

Nwalo (as cited in Anyira, 2011) also stated that a library user is anybody who visits the library (either as remote access to the library resources to satisfy his information needs. As cited in Anyira (2011), Whitakers further classified users into general readers, subject readers, special readers, and non-readers. From the different classifications, library users can generally be called "learners" on specific issues with different information needs that the library must strive to meet. In addition, after this is done, it is expected that the users would be actively involved in processing such presented information, analyzing it, and making effective use of it, leading to satisfaction.

In other words, a user's satisfaction is not just a measure of the library alone but the effect on the user who utilizes all the available information sources and services to meet a target need. At this point, the satisfaction of a user's need is influenced by factors like; his intrinsic discipline and morale towards accomplishing a purpose. This would further determine whether the user strives to become a consumer or producer of information and it is the latter that indicates that satisfaction is guaranteed at library usage. For instance, a library user who is a farmer could require information on the best farming practices for his type of soil to yield a bountiful harvest. If he gets to the farmland, practices what his search revealed, and gets a bounteous yield, he can be said to be a satisfaction user, but if he fails to meet that target, then it would not mean that the library did not have information to meet user puzzle, but that, the user did not process the information he acquired, to lead to knowledge and cannot be said to be satisfied with the library use.

Information Processing Theory: The essence of processing information by library users for better understanding cannot be over-emphasized as it involves the possession, manipulation, and use of information to increase the cost-effectiveness of many physical and cognitive processes. There are two schools of thought on how individual users learn: "Behavioral and Cognitive. While behavioral learning theories emphasize observable

behavior changes, cognitive learning theories focus on users' unobservable mental processes in learning and remembering information or skills.

The cognitive revolution began in the 1960s, as Shuell (1986) held that although they often focused on learning per se, it influenced the way psychologists thought about acquiring knowledge. Cognitivism held that learning is an internal process that cannot be observed directly and suggests that it produces an internal change, which modifies a learner's ability to respond to a particular situation. Thus, the observed changes that signify that learning has occurred are nothing more than reflections of internal changes. In this regard, learners are viewed as active processors of information – they seek information to make sense of the world around them, and their inquires are initiated to solve existing problems.

Consequences of actions that are held as essential components to the cognitivist are referred to as rein-forcers (strengthening actions) to the behaviorists. However, the cognitivist maintain that they serve as feedback and reduce teachers' reaction to the uncertainty of students' behavior, providing the correctness of the learning and understanding in the pursuit of knowledge and skills satisfaction. Bateso (1980) held that the function of educators is to provide students (library users) with the sorts of experience that enables them to perceive patterns that connect. A user who tries to use the library may better appreciate what is happening than a person who can memorize how to use the library. The first may face challenges that would lead to asking more questions, perhaps getting attention and or finally knowing what it means to search for information than the second, who memories the steps for information seeking in the library. By engaging the brain in that trial, the first user processes his exploits, digests experiences, and responds to the complex context in which he is immersed.

The rise in information processing activities in human problem solving can be remarkable. Encyclopedia Britannica (1998) accounts for how humans receive information with the sense, sounds through hearing, images and text through sight, shape, temperature, and affection through touch and odors through smell. To interpret the signals received from the senses, humans have developed learning complex systems of languages consisting of alphabets, symbols, stimuli, and the associated rules of usage. This has enabled them to recognize the objects they see, understand the message they read or hear, and comprehend the signs. Although library users may be adept at processing information stored in their memories, analog information stored externally to the mind may not be processed easily.

Caine and Caine (1994) presented learning in a scenario of active uncertainty, the tolerance of ambiguity, problem-solving, questioning, and patterning as leading to B.B. learning. The author further reveals that B.B. learning is usually experienced as joyful; although the content is rigorous and intellectually challenging, learners experience a high degree of self-motivation. It acknowledges and encourages the brain's ability to integrate vast amounts of information. It involves the entire learner in a challenging learning process that simultaneously engages the intellect, creativity, emotions, and physiology. Brain-based learning allows for the unique abilities and contributions from the learner in teaching – learning situation and acknowledges that learning takes place within a multiplicity of contexts- Classroom, School, Community, Country, and the planet.

Encyclopedia of Education (1994) accounted for how the workings of the human mind compare with the computer; thus, Bower & Hilgard (1986) explained that the motive above is in connection with the many distinct levels of organization which include; feature analyzer, pattern recognizer, sensory and conceptual memories acting each as a system of its own either to manipulate or construct patterns of symbols or interpret as well as understand events in an individual's world. Hence, while all these activities are mentally taking place, proper designated keys are attached to information received to enable for proper coding, which Iheanacho (2002) called Central processor fostering such mental activities as thinking, judging and deciding. Processing information appreciates the inter-penetration of parts and totals by connecting what is learned to the greater picture and allowing library users to investigate and analyze the parts within the whole.

Types of memories: Felman (1996) counted the declarative, procedural, semantic, implicit, and explicit, while for Iheanacho (2002), types of memories include explicit, implicit, episodic, semantic, generic, and eidetic. There are considerable disagreements on implicit and explicit memories. Some researchers propose that both kinds differ simply in the way information is initially processed and retrieved and not that they exist independently; thus, further scientific investigations not concluded would not permit the identification of which is more correct.

Components of memory: Describes the specific manner in which information read from materials penetrates memory. Akinson & Shiffrin (1971) studies on memory suggested that there are different systems through which information must travel if it is to be remembered; thus, three kinds exist, and they vary in terms of their function and length of time information

is retained. They are the sensory memory (Ukpong, 2004) or sensory information store (Iheanacho, 2002) or sensory register (Moore, 1994), the short-term and long-term memories.

The memory processes are necessary for memory to operate successfully and embody encoding, storage, and retrieval. According to Ukpong (2000), encoding involves the initial record of information. Storage is information saved for future usage, and retrieved is the recovery of stored information. The possibility of one responding to a question depends on user ability to retrieve such from storage which does not occur always (sometimes the search could be direct and immediate and at other times, complex) because when a question is posed to memory, several different but interrelated processes get involved before an overt response can be made. Ellis, Bennette, Daniel, and Rikert (1979) held that in many respects, storage is the center point (core) of our conceptualization of memory hence Ukpong (2002) noted that it is crucial to understanding that if the three processes of memory (encoding, storage, and retrieval) must experience success, each of them must be functional.

Levels of processing theory of learning: Levels of processing emphasize the degree to which material is mentally analyzed and suggest that the amount of information processing that occurs when a material is initially encountered is central in determining how much information is ultimately remembered. It implies that the degree to which material is analyzed and considered is what is crucial; hence, the more likely the user is to remember information thus, because users do not pay close attention to much of the information to which they are exposed, only scanty processing takes place, and they forget new materials almost immediately (Ukpong, 2006).

Library Instructor's / teacher's role: An instructor's function is to direct students' (users) attention to what he teaches as he communicates worthy information with all the stimuli bombarding the sensory register. For example, when they are given a reading assignment, should they read to remember factual information or try to understand the abstract concepts related to what is read? Students can sometimes lead the pace when they ask whether some information would be required for a test. However, teachers should avoid asking students to attend to several tasks at once or bombarding them with too much information because selecting what is important takes time (Lawal, 2006).

Study implication for Library users: Bearing in mind the meaningfulness of information materials, it is useless to require users to learn foreign or abstract language except it has a

meaning to them (Lawal, 2006). The necessity to recognize the limitation of the short-term memory in space and time should guide what users are expected to learn at any particular time. Forgetting is also necessary because of the billions of unnecessary information, which users would not always need and help to remember. Feedback is a part of instruction and contributes to the internal operation of processing, showing the learning direction.

METHODOLOGY

A survey research design was used for the study carried out in the University of Calabar Library. The population of the study was **2635** registered users. A simple random/ availability sampling technique selected 600 final-year undergraduates registered users in the social science unit. Accordingly, 600 copies of the questionnaire were distributed in the social science unit of the reader services division to students of accounting, banking, finance, economics, Education, geography, and sociology. This was because, after COVID-19/ASSU strike, this unit was more populated with readers as they were preparing for the Examination so, the available students were studied. A questionnaire was distributed with the condition that only registered users who had used the library often (at least thrice a week) were eligible to respond. Only 467 usable copies were returned and analyzed for the study.

ANALYSIS & DISCUSSION

Demographic information of respondents reveals the following.

Departments within the Social science librar	Males	%	Females	%
Accounting	65	33	7.07	32	6.85
Banking & Finance	86	36	7.71	50	10.71
Economics	100	44	9.42	56	11.99
Education	89	35	7.49	54	11.56
Geography	60	42	8.99	19	4.07
Sociology	67	39	8.35	27	5.78
Totals	467	229	49.03	238	50.96

Results in Table 1 showed that out of the 467 respondents, 229 (49.03%) were males while 238(50.96%) were females.

Objective 1, Table 2: **Examine whether students had an awareness of the existence of information processing theory**

S/N	ITEMS	RESPONSES				
		A		D		
		f	%	f	%	Total %
1	I am interested in seeking information about what the lecturers have taught	418	89.51	49	10.49	467 100
2	I compare lecture notes with library information sources	429	91.86	38	8.14	467 100
3	I discuss with colleagues, my observations	451	96.57	16	3.43	467 100
4	Attributing, checking, classifying, and criticizing forms part of processing materials during studies	437	93.58	30	6.42	467 100
5	These activities enhance my ability to remember what I had learned	446	95.50	21	4.50	467 100

From Table 2, it can be observed that 418(89.51%) respondents agreed they were interested in seeking information about what the lecturer has taught, while 49(10.49%) disagreed. Also, 429(91.86%) agreed to compare notes with library information sources, while 38(8.14%) disagreed. In item 3, respondents agreed that they discuss their observations with colleagues while 16(3.43%) disagreed. Again, 437(93.58%) agreed that attributing, checking, classifying, and criticizing forms part of processing materials during studies, while 30(6.42%) disagreed. Lastly, 446(95.50%) agreed that these activities enhanced their ability to remember what they had learned, while 21(4.50%) disagreed.

The analysis results indicate that the percentage of agreement of all the five items is higher than 50. This implies that students are aware of information processing theory existence. These findings tally with the work of Block (2010), who presented that a successful library informs its users and convinces them to use such. This further reveals that with information, there is awareness.

Objective 2, Table 3: Determine whether respondents had ever applied information-processing theory to their study.

S/N	ITEMS	RESPONSES		
		A	D	

		f	%	f	%	Total %
1	In the process of reading and analyzing, I gain better clarification	435	93.15	32	6.85	467 100
2	This helps me to sum lessons into small groups	408	87.37	59	12.63	467 100
3	Summarization further sorts and help for remembrance of the learned information materials	426	91.22	41	8.78	467 100
4	I can on my own bring out the best meaning from studies	443	94.86	24	5.14	467 100
5	It grants, the opportunity to speak about lessons more freely as they have become a part of the learner.	439	94.00	28	6.00	467 100

Table 3 showed that 435(93.15%) respondents agreed that they gained better clarification in the process of reading and analyzing, while 32 (6.85%) disagreed. 408 (87.37%) agreed to sum lessons into small groups, while 41(8.78%) disagreed. Also, 426 (91.22%) agreed that further summation sorts and help for remembrance while 41(8.78%) disagreed. 443 (94.86%) agreed that on their own, they could bring the best meaning out from studies, while 24 (5.14%) disagreed. Again, 439(94%) agreed that they have the opportunity to speak about their lessons freely, while 28(6%) disagreed. This result indicates that respondents had applied information theory to their studies because the agreement to items is more than 50% on the five statements of the objective. This tally with the assertion on levels of processing. Thus, after the initial reading or study, some degree of processing occurred: conceptualization. This is boosted further by the continuous practice of involving others (either individually or in a group) to help make the lesson graspable and original within the individual learner's memory. Ukpong (2002) noted that it is crucial to understand that if the three processes of memory (encoding, storage, and retrieval) must experience success, each must be functional.

Objective 3, TABLE 4: **Find out if students had benefitted from the application of information processing theory.**

S/N	ITEMS	RESPONSES	

		A		D		Total %
		f	%	f	%	
1	Learners can now make a better explanation of the things they had studied	422	90.36	45	9.64	467 100
2	Bring into discussions new information from learners understanding of previous lessons	436	93.36	31	6.64	467 100
3	It is now possible to draw inferences from specific learned cases to make generalizations	398	85.22	69	14.78	467 100
4	By processing the lessons, learners can arrange their study materials systematically to create an entity	430	92.08	37	7.92	467 100
5	Recalling lessons has become an effortless experience for the learners.	441	94.43	26	5.57	467 100

Results from table 4 showed that 422 (90.36%) respondents agreed that they could better explain things studied while 45(9.64%) disagreed. 436 (93.36%) respondents agreed they could bring new information from previous lessons into discussions, while 31(6.64%) disagreed. 398(85.22%)can draw inferences from specific learned cases to make generalizations, while 69 (14.78%) disagreed. In addition, 430 (92.08%) respondents agreed that they could arrange study materials to create an entity, while 37 (7.92%) disagreed. Finally, 441(94.43%) respondents agreed that recalling lessons has become an easy experience, while 26(5.57%) disagreed. The indication here is that more than 50% of respondents have benefited from information processing theory in their studies.

This result connected with the studies of Moore 1994, Iheanacho 2002, and Ukpong 2004, who presented a combination of short and long-term memory as sensory register, sensory information store, and sensory memory, respectively as systems through which information must travel if they are to be remembered. It also tallied with Caine and Caine (1994), who presented learning in a scenario of active uncertainty, the tolerance of ambiguity, problem-solving, questioning, and patterning as leading to Brain-Based' learning (B.B.). The author further reveals that B.B. learning is usually experienced as joyful; although the content is rigorous and intellectually challenging, learners experience a high degree of self-motivation.

CONCLUSION

Analysis and presentation of the results above revealed that students were aware of this theory, applied it, and benefitted during their study period. Although some disagreed with its awareness, it is evident that every learner processes his learning inputs to achieve output, but many are not aware of the theory guiding their brain processes of information leading to comprehension and or achievements; thus, the scope of learning should be made more explicit for their understanding.

From the discussion so far, many lessons have been presented on the attributes of the human mind point on how to improve library user's study habits for proper understanding, storage, and retrieval lessons are evident to show that both the instructor and the library users have responsibility for proper storage and retrieval of learning material. It is to ensure that library users process experiences to gain meaningful knowledge and create a challenging non-threatening environment that fosters independent learning; thus, what is needed is a framework for a more complex form of learning that makes it possible for users to recognize and make sense of what is already known. Many years have seen exciting break-through in the brain- research (information processing) with enormous implications for Education. Caine & Caine have "brought together the best of new understandings about the brain and new insights from modern experimental psychologies; applying the concepts to the problems leading to more brain-friendly approaches to teaching and learning; geared to make our schools more efficient and happier institutions.

To ensure success, Educators and Stakeholders need to appreciate that all the factors influencing users also affect development. As they are capable of enormous creativity but still operate within the limits of internalized social –suggestive norms, it is impossible to become effective processors of information by memorization, which becomes a norm because of adverse incidences in the school environment. Therefore, it is essential to allow library users to learn for the joy of learning rather than for what they can get, primarily to fulfill other people's goals and expected outcomes. Schools need to prepare students with essential skills for a complex, changing world, which requires more than memorization for tests because, after the tests, students tend to forget. Deci & Ryan (1987) had revealed that library users are actually deprived of some significant rewards like the joy and excitement that are the consequences of real learning.

Regrettably, most schools do not engage students in the reflection, inquiry, and critical thinking needed to help them cope with and take charge of the influences of contemporary changes, technology, and the media. In addition, some of this lack of deeper understanding may be reflected in the fact that most users have extremely unrealistic goals when measured against standards established in the profession of their choice at the end of the day. Students do not need to be pushed into a profession of their parents' choice or where they have a relationship but where they are interested and can manage the challenges embedded in such a field.

REFERENCES

Aina,   L. O. (2004*). Library and Information Science for Africa*. Ibadan: Third World Information Services.

Alegbeleye, B. (1996). A Study of Book Deterioration at the University of Ibadan Library and its Implication for Preservation and Conservation in African University Libraries. *African Journal of Library Archives and Information Science* 6(1)37-45.

Agyen-Gyasi, K. (2008). User Education at the Kwame –Nkrumah University of Science & Technology (KNUST) Library: Prospect and Challenges. *Library philosophy and practice.*

Atkinson, R. C. & Shiffrin, R. M. (1971).The Control of the Short Term Memory. In Ukpong, E. M. (2004). *Stop Forgetting*: *Train Your Memory*; A Manual for Students in Schools, Colleges & Universities. Calabar: BAAJ & Omnix international limited.

Bateso, A. (1980). *Mind and Nature: A Necessary Unity.* New York: Bantam Books.

Block, M. (2010). In Baro, E. E. & Ebhomeya, L. (2013). Marketing the Library Resources and Services to Users: A Survey of Twenty two University Libraries in Nigeria. Information Impact*: Journal of Information & Knowledge Management 4(1), June 2013.*

Bower, G. H. & Hilgard, E.R. (1986). Theories of Learning 5th Ed. New York: Prentice Hall.

Caine, R. N. & Caine, G. (1994*). Making Connections*: Teaching and the Human Brain. California: Addison –Wesley publishing company.

Deci, E. L. & Ryan, R.M.(1987).The *Support of Autonomy and the Control of Behavior . Journal of Personality* and Social Psychology 53(6) 1024-1031.

Ellis, H. C.; Bennette, T. L.; Daniel, T. C.; & Rikert, E .J. (1979).*Psychology of Learning and* Memory. California; Wadsworth Publishing Com.

Encyclopedia Britannica (1998). Vol. 26, p616, 15th Ed, USA: Encyclopedia Britannica Inc.

Felman, S. R. (1996*). Understanding Psychology 4th Ed.Boston: Mc   Graw Hill publishers.*

Iheanacho, R. E. A.(2002). Psychology of Learning. Owerri: GOC international publishers.

Inyang, O. G. (2013). Users' Perception of Library use Malpractices: Case Study of University of Calabar Library, Nigeria. Information Impact*: Journal of Information & Knowledge Management 4 (1) 18-29.*

Inyang, O.G. &Ekpang, P. O (2019). Users' Perception of the Need for Marketing
        Academic Libraries Using Librarians Competencies. *International Journal of
        Marketing and Business Communications 8(2&3)17-24.*

Iwe, J.I. (2008). Knowledge Management Framework in Libraries for National
        Development. Library and Information Practitioner, *Journal of the
        National Library Association Cross River State C hapter.2 (1) 34 -45.*

INTERNATIONAL ENCYCLOPEDIA OF EDUCATION (1994). U.K.: Elsevier Science
        Ltd; vol 6 &8.

Kakai, M. ; Ikonga-Odonga, R. & Kigongo –Bukeny, I. M. N. (2004). *A Study of the
        Information Seeking Behavior of Undergraduate Students of Makerere
        University*, Uganda. World   Libraries 14 (1) 14-26.

Kermally, S. (1996*). Total Management Thinking. Oxford: Butterworth.*

Lawal, O.O. (2006). Management in Libraries and Information Centres. Unpublished Lecture
        Notes

Luas, H. C. (2002). *Information Technology for Management* 7th Ed. Boston, Irwin.

Moore, K. D. (1994*). Secondary Instructional Methods*. Boston: Mc Graw Hills.

Nwalo, cited in Anyira, I. E. (2011). The Anatomy of Library Users in the 21st Century.
        Library Philosophy and Practice 2011 ISSN 1522-0222. Retrieved from:
        http/www.webpages   .uidaho.edu/2mbolin/anyira-anatomy-htm.

Obokoh, N. P. (1983). Other Libraries' Books in our Campuses: The Forgotten aspect of
        Library Cooperation. *Bendel Library Journal 6 (1 & 2) 82-89.*

Sousa, (2011). Big Bones Bash Brain-based Learning Resources. Accessed March 19,
        2014. Available at: Http: // www.Funderstanding.com/ brain-based learning cfm.

Ssendikadiwa, E. N. N. (2006). Evaluation of Library Use Instruction Programms to First
        Year Students in Makerere University, Kampala. Makerere University
        (unpublished project   Report.

THE NEW WEBSTER'S DICTIONARY OF THE ENGLISH LANGUAGE(2003).Indexed Edition   ,USA:
        Marriam-Webster Inc.

Ukpong, E. M. (2000). Psychology of Learning. Unpublished Lecture Notes.

Ukpong, E. M. (2002). Psychology of Learning. Unpublished Lecture Notes.

Ukpong, E. M. (2004). *Stop Forgetting: Train Your Memory; A Manual for Students in
        Schools, Colleges, and Universities*. Calabar: BAAJ & Omnix international
        Limited.

Ukpong, E.M. (2005). Psychology of Learning. Unpublished Lecture Notes.

Ukpong, E. M. (2006). Psychology of Learning. Unpublished Lecture Notes.

Whitaker cited in Anyira, I. E. (2011). The Anatomy of Library Users in the 21st Century.
Library Philosophy and Practice 2011 ISSN 1522-0222. Retrieved from:
        http/www. Webpages .uidaho.edu/2mbolin/anyira-anatomy-htm.