



## **Perception of Library and Information Science Educators on Students' Leveraging Information Synthesis Skills for Plagiarism Solutions in Universities in Abia State, Nigeria**

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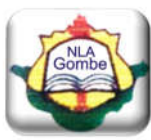
### **Abstract**

*This study was conducted to investigate perception of library and information science educators on leveraging information synthesis skills for plagiarism solutions in universities in Abia State, Nigeria. The study was guided by four specific objectives with their matching research questions. The study adopted descriptive survey research design. The population of the study was 33 Library and Information science educators from the two public universities in Abia state, namely, Abia State University, Uturu and Michael Okpara University of Agriculture, Umudike. Data were collected using structured questionnaire. 25 responses were gotten out of the 33 respondents, indicating 76% response rate. The data were analyzed using descriptive statistics of mean and standard deviation. The findings of the study showed a high perception of library and information science educators on leveraging the information synthesis skills of ability to read multiple sources and write down notes; ability to summarize contents from the multiple sources, and ability to form new interpretations from contents, for providing sustainable solutions to students' plagiarism in the universities of Abia State. It also found out that a number of challenges impede on using information synthesis to solving students' problem of plagiarism. The study therefore concluded that LIS educators believe strongly in using information synthesis to solve the problem of students' plagiarism especially if the challenges that impede on information synthesis are tackled. The paper recommends among others, collaborative efforts among LIS educators, faculty and universities authorities as well as restructuring of the information skills instruction.*

**Keywords:** Information Synthesis, Information literacy, Plagiarism, LIS Educators, university students

### **Introduction**

Information synthesis is a component of information literacy skills- the widely acclaimed skills for survival both in the academia and in the information society era. The term information literacy first appeared in a report by Paul G. Zurkowski in 1974 in United States. Zurkowski used the phrase to describe the "techniques and skills" known by the information literate 'for utilizing the wide range of information tools as well as primary sources in molding information solutions to their problems'. In the information society era, it is common knowledge that change and developments depend increasingly upon information and its exploitation and subsequent use in all spheres of endeavours including education. Information literacy is a set of skills that equip students with the ability to be aware of an information need, and the ability to locate, evaluate, synthesize and use information in the most appropriate way. It has been

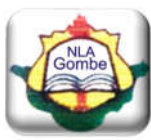


established to be a framework of learning; a prerequisite for solutions to problems in school and even beyond. For instance, it is said to be the antinode for rote learning method that has characterized our education with its attendant deficiency in students' achievement of success in their academic learning. A study by Obasi (2020) revealed that all that make up the information literacy skills are essential for students' success in their research work, however students were deficient in skills often being considered as higher order skill of which information synthesis is chief.

Information synthesis involves multiple cognitive activities that need to be mastered in order for it to achieve the desired outcome. It entails reading through many sources, analyzing the information, evaluating them and finding connection among the sources and at the end creating something new. The most important aspect of consulting other works while doing a study, besides using many sources and varying your sources, and summarizing them, is to be able to find and explicate link between and among those sources for the purpose of constructing something new. This is what information synthesis sets out to do. Without information synthesis therefore, new knowledge cannot be derived from large amounts of data. Information synthesis is an important part of students' academic assignments which include projects, theses and dissertations writing, and possibly with their eventual publications in journals and presentation in conferences. Researchers have established that the key to writing any well researched essay is information synthesis. It entails ability to read well, to understand the main idea and developmental structure of source articles and analyzing many sources (Photinos, 2017; Sullivan, 2014). So students are exposed to information synthesis instructions and tasks to enable them have mastery in applying the skills to their studies and research endeavours. This is to make them information literate enough to handle information related academic tasks and forestall sharp practices such as plagiarism.

Plagiarism is the act of using other people's ideas without acknowledging them thereby making the ideas seem as if they were your own. It is also the flagrant copying of others people's work in part or in whole in order to fulfil an academic requirement. People plagiarize sometimes without knowing it. However the large part of plagiarism acts are intentional. In either case, plagiarism is a serious intellectual offence. This is despite the reasons for intentional plagiarism such as work and times pressure, sheer laziness and lack of relevant skills for research, writing and information use. Plagiarism is bad in many ways. It devalues the culprits- students, the university, or faculty. It stifles creativity, innovation and development. It spoils reputation and leads to demotion. Plagiarism has become common place in the academic field and is increasing across countries, disciplines, and researchers (Muthalab et al., 2023). To curb this intellectual menace, solutions have been proposed and are in practice. The most common seems to be the plagiarism software detector. This would detect the amount of plagiarism in a piece of work. Other solutions offered by technology against plagiarism are all geared towards escaping being caught by the same system of detection. Such apps, such as paraphrasing apps are not deep and proactive solutions. Authors have muted their reservations of technology solution, which they argue, is only reactive in nature (Giannopoulou et al., 2021; MacLennan, 2018). No wonder the problem of plagiarism persists with their attendant harm. It becomes expedient to look at solutions that are sustainable, preventive, foundational and structural if this problem should be tackled headlong.

In Nigeria universities and elsewhere in the world, library and information science (LIS) educators are the conveyors of information literacy instructions. Information literacy instruction is regarded to be of significant value in addressing information-related problems in students' learning and research. It becomes important to find out the perception of the



instructors/educators concerning students' information synthesis and plagiarism solutions. Perception of the whole idea of information instruction as it relates to plagiarism solutions from the instructors' view is a factor in either advancing the process or bringing it down, yet this information is scarce in literature. Based on this premise, the study investigated the perception of LIS educators on leveraging students' information synthesis skills to providing sustainable plagiarism solutions in universities in Abia State.

### **Statement of the Problem**

The constructs of information synthesis which make it an important part of teaching, learning and research are ability to read, note-taking, analyzing information, summarizing information, and ability to bring out new information from multiple sources. With this knowledge which is usually transmitted by LIS educators to students, students are well-grounded and equipped to handle academic works including their researches.

However, observation reveals a prevalence of plagiarism among students in the universities. Penalties have not deterred them. Technology solutions have been brought on board with the deployment of plagiarism detector software and other applications yet the problem goes unabated. If this problem persists, it spells doom for the culprit student, faculty, universities and society cumulatively with such effects as grade reduction, failure, degree revocation. Academic integrity and credibility of universities nationally and internationally become questionable.

Literature has few studies on perception of plagiarism and information synthesis, and they are from students' perspective. Equally, these studies are few in our Nigeria context. Hence this study aims at determining the perception of LIS educators on leveraging information synthesis by students for plagiarism solutions in universities in Abia State, Nigeria.

### **Purpose of the Study**

The purpose of the study is to determine the perception of library and information science educators of students' leveraging of information synthesis for plagiarism solutions in universities in Abia state.

Specifically, the study seeks to:

1. Determine the perception of LIS educators on leveraging ability to read from multiple sources as solutions for plagiarism in universities in Abia State.
2. Find out the perception of LIS educators on leveraging ability to summarize information from multiple sources as solution for plagiarism in universities in Abia State.
3. Ascertain the perception of LIS educators on leveraging ability to form new interpretations from consulted sources as solution for plagiarism in universities in Abia State.
4. Determine challenges militating against information synthesis as solutions for plagiarism in universities in Abia State.

### **Research Questions**

The following research questions were framed to guide the study:

1. What is the perception of LIS educators on leveraging ability to read from multiple sources as solutions for plagiarism in universities in Abia State?
2. What is the perception of LIS educators on leveraging ability to summarize information from multiple sources as solution for plagiarism in universities in Abia State?



3. What is the perception of LIS educators on leveraging ability to form new interpretations from consulted sources as solution for plagiarism in universities in Abia State?
4. What are the challenges militating against Students' information synthesis as solutions for plagiarism in universities in Abia State?

### **Literature Review**

This review was done on various constructs of information synthesis and their interconnectedness to plagiarism solutions. It further focused on the perception of LIS educators on leveraging information synthesis for plagiarism solutions.

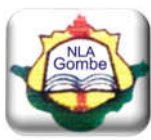
In a study on perception of plagiarism among undergraduates studies in Greek university (Giannopouliou et al., 2021), the finding buttresses the impact of information literacy on plagiarism solutions. The findings reveal that students who had lower percentage of plagiarism had participated actively in information skills training while students with highly plagiarized works participated lowly in the instruction. However the study did not isolate information synthesis rather information literacy of which information synthesis is an aspect. Therefore, since this work was based on students' perception, the case may be different with the instructors' perception, which is what the present study is investigating. In addition, this review focused on plagiarism but the present study fills the gap of aligning plagiarism with information synthesis.

MacLennan (2018) in her study of perception of plagiarism avoidance competencies of students, reported a large portion of students lacking academic writing competencies and skills. Gleaning evidences from other works, the author posited that reports have collaborated the relevance of writing skills to plagiarism, and thus concludes that writing and reference instruction should well be prominent in curriculum of schools. Muthalab et al (2023) corroborated that academic writing requires an ability to engage in reading. Oriogu's et al study (2021) showed an increased academic performance of students after exposure with information Literacy. Thus the researchers perceive information literacy to have strong influence on students' learning and performance. The study is related to the present study because information literacy is the major class of information synthesis but differs from it, in that it investigated academic performance while this study is specifically on plagiarism.

In a study by Din et al., (2022) on perception of libraries on practices of information literacy, findings reveal that libraries' awareness of information literacy and their benefits is high but are encumbered with challenges such as absence of information literacy in the curriculum, users' disinterestedness, lack of strong commitment of librarians and shortage of staff.

Furthermore, Librarians are increasingly favouring instruction as solution to plagiarism. University of Texas (2023) believed that curbing plagiarism needs tutorials not a technology Southern Utah University (SUU) library (2023) was more specific in proffering summarizing and paraphrasing skills as escape routes of plagiarism. According to them, these skills encourage use of one's own voice

Obasi (2020) speaking further on challenges in assessing information synthesis maintained that information synthesis assessment can be effectively done or assessed when tied to a task such as research, otherwise you may not monitor students' performance or progress. Usman and Maidabino (2018) also did a study that examined the perceived information literacy skills of science students of Bayero University Kano. The study also reveals various challenges of the information literacy programme. Despite those challenges, students had moderate information



literacy skill. From this finding, it can be concluded that in the absence of challenges and when Students' information ability is put to test in real time tasks, they would perform better. Similarly MacLennan (2018) reported lack of academic writing skills and competencies. Al-Issa (2013) study on concepts of information literacy and information literacy standards among undergraduate students reported inability to incorporate the information literacy standards into their completed works even after instruction as they were still internalizing the skills. The study recommended early intervention of IL instruction from lower education to higher level and collaboration between librarians and faculty.

Chanchinmawia and Verma (2018) equally carried a survey study that focused on the assessment of information literacy skills among scholars of Mizoram University (India). The study recommended inclusion of IL in the course curriculum and sustained awareness of information literacy. This study has similar findings with others in terms of high and low performance in lower order and higher order skills respectively.

Humphery-Ackumey, et al (2019) carried out a study on the information behaviour of health science graduate students of Kwame Nkrumah University of Science and Technology (KNUST), Ghana. The study recommended that librarians in collaboration with health experts should design instructional services that are based on empirical findings to educate the students on information use. This recommendation was based on the deficiency of the students in applying information skills to their work though findings showed high possession of these skills. From the foregoing, the challenges are multifaceted- coming from students' lack of understanding, lack of collaboration with faculty in designing information literacy programmes, and lateness in teaching the skills to students. Again the challenges under review were more of information literacy and not specifically on information synthesis.

From the literature reviewed, no study has been done on perception of LIS educators on leveraging students' information synthesis for plagiarism solution in Universities in Abia State and beyond. Most of these studies are measuring information literacy/synthesis skills of students, independent of the subject of plagiarism. The present study is taking this novel approach of tying information synthesis specifically to plagiarism, which few studies have undertaken. Also importantly, other works concentrated on analyzing the students' perception but this study x-rayed the perception of the educators who are key players in the instructional process. These are the gaps the study sought to fill.

### **Methodology**

The study adopted the descriptive survey design. The population of the study consisted of the 33 LIS educators from the two public Universities in Abia State- Abia State University, Uturu, and Michael Okpara University of Agriculture, Umudike. Total enumerative method was used because the population was manageable. Data were collected with the use of a structured questionnaire. The questionnaire was administered through an online system to the LIS educators in these two universities. A total of 25 responses out of the 33 respondents were gotten and found usable for the study. Furthermore, the questions were structured using a four (4) point scale of SA, A, D and SD, and with a criterion mean of 2.50. Data were analyzed using descriptive statistics of mean and standard deviation.



## Results

**Research Question 1:** What is the perception of LIS educators on leveraging ability to read from multiple sources as solutions for plagiarism in universities in Abia State?

**Table 1: Perception of LIS educators on Students’ Ability to Read and Plagiarism Solutions**

ITEM STATEMENT	Mean	SD	Remark
Students’ ability to read from multiple sources can help them avoid the act of plagiarism.	3.68	.476	Agreed
Students’ ability to read lengthy articles/documents can help them avoid plagiarism.	3.08	.954	Agreed
Students’ inability to understand contents can increase their tendency to plagiarize	3.44	.712	Agreed
A student’s ability to take down notes while reading can help them avoid plagiarism	3.64	.490	Agreed
<b>Grand Mean</b>	<b>3.46</b>		

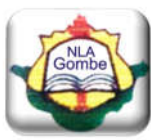
The result in Table 1 showed a grand mean of 3.46 which implies that the respondents agreed that students’ ability to read multiple sources can offer solutions against plagiarism. The findings indicate that ‘ability to read multiple sources’ has the highest mean (3.68), followed closely by ‘ability to take down notes while reading’ (3.64). The item with the least mean score is Ability to read lengthy articles/documents (3.08).

**Research Question 2:** What is the perception of LIS educators on leveraging ability to summarize information from multiple sources as solution for plagiarism in universities in Abia State?

**Table 2: Perception of LIS educators on Ability to Summarize Contents and Plagiarism Solutions**

ITEM STATEMENT	Mean	Standard Deviation	Decision
A student’s ability to use one own words can prevent them from plagiarizing	3.52	.510	Agreed
Students’ ability to paraphrase can prevent them from plagiarizing	3.88	.771	Agreed
Students’ ability to avoid many direct quotes can prevent them from plagiarizing	3.28	.618	Agreed
Students’ ability to identify relevant contents in sources as they relate to their topic under investigation, can help prevent plagiarism	3.44	.712	Agreed
A student’s ability to recognize patterns/lines of thought is capable of helping them prevent plagiarism.	3.36	.700	Agreed
Students’ ability to analyse information from multiple sources can help them to avoid plagiarism	3.56	.570	Agreed
<b>Grand Mean</b>	<b>3.51</b>		

In Table 2, the grand mean score of 3.51 showed that responded agreed that the ability of students to analyse contents can help them avoid plagiarism. The finding indicates that ability to paraphrase with the highest mean of 3.88, is a major element of ability to analyse contents while ‘direct quoting’ is the least with a mean score of 3.28.



**Research Question 3:** What is the perception of LIS educators on leveraging ability of students to form new interpretations from multiple sources and plagiarism solutions in universities in Abia State?

**Table 3: Perception of LIS educators on ability to Form new interpretations and Plagiarism solutions**

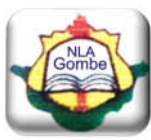
ITEM STATEMENT	Mean	Standard Deviation	Decision
Students' ability to create a new meaning from different views is capable of helping them avoid plagiarism.	3.56	.507	Agreed
A student having the skill to Identify a gap in knowledge after reviewing multiple sources can be a solution to their tendency to plagiarize.	3.48	.586	Agreed
Students' ability to draw conclusion or summarize from multiple sources can enable them avoid plagiarism.	3.60	.500	Agreed
Students' ability to detect divergent views on a topic can prevent them from plagiarizing.	3.20	.550	Agreed
<b>Grand Mean</b>	<b>3.46</b>		

Results in Table 3 revealed a grand mean of 3.46, which implies that the respondents agreed that students' ability to form new interpretations from multiple sources can prevent them from plagiarism. The findings indicated that ability to summarize from multiple sources had the highest mean.

**Research Question 4:** What are the challenges militating against leveraging information synthesis as solutions for plagiarism in universities in Abia State?

**Table 4: Challenges in leveraging information Synthesis skills for plagiarism solutions**

ITEM STATEMENT	Mean	Standard Deviation	Decision
It is difficult to assess information synthesis skills of students.	3.04	.611	Agreed
Students lack deep knowledge of information synthesis skills.	3.40	.707	Agreed
Even after information synthesis instructions, students choose to plagiarize.	3.16	.686	Agreed
Students do not incorporate knowledge of information synthesis into their academic work.	3.40	.577	Agreed
Information synthesis is difficult to teach to students.	2.64	0.81	Agreed
Students lack adequate recognition of the importance of information skills' instructional programme.	3.04	.539	Agreed
There is Lack of collaboration between library professionals/educators and faculty on information literacy skills education.	3.08	.812	Agreed
Students are not interested to learn how to avoid plagiarism.	3.12	.781	Agreed
LIS educator lack commitment in the information literacy programme.	2.24	.879	Disagreed
Lack of adequate competence to teach information literacy skills.	2.32	.900	Disagreed
<b>Grand Mean</b>	<b>3.14</b>		



In table 4, the grand mean score of 3.14 showed that respondents agreed that there are challenges affecting leveraging information synthesis skills for plagiarism solutions. The major challenges are that students choose to plagiarize despite information synthesis literacy, students do not incorporate knowledge of information synthesis into their academic work and students are not interested to know how to avoid plagiarism. However respondents disagreed that the educators lacked commitment and competence to teach information skills to students because it has a mean score of 2.32.

### **Discussion of Findings**

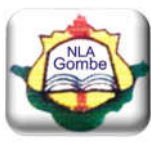
The findings of this study showed that LIS educators perceive students' ability to read multiple sources and make notes from them as solutions against plagiarism. The reason was because the finding in table 1 indicated a grand mean of 3.46. This finding is in tandem with the findings of MacLennan (2018) in her study of perception of plagiarism avoidance competencies of students, who reported findings to the effect that students perceived their need for information synthesis simply because they encountered problems in analyzing, reading and putting together ideas. The author also finds out that a large portion of students lack academic writing competencies and skills. Gleaning evidences from other works, the author posited that reports have collaborated the relevance of writing skills to plagiarism. This implies that students should be inculcated the habit of reading and writing because academic writing requires an ability to engage in reading (Muthalab et al 2023).

The finding on the perception of LIS educators on leveraging ability to summarize and plagiarism solutions in universities in Abia State indicated that students' ability to summarize from multiple sources vis a viz using own words, avoiding many quotes and analyzing information, can help prevent plagiarism. This finding is occasioned by the results of the analysis as presented in table 2 where the grand mean was 3.51. The finding agrees with Southern Utah University (SUU) library (2023) which proffered summarizing and paraphrasing skills specifically as escape routes of plagiarism. According to SUU, these skills encourage use of one's own voice. This implies that library educators have a strong belief that if students improve on their information summary and analysis skills, the tendency of having plagiarized works would be greatly minimized if not eradicated.

Furthermore, findings revealed that LIS education perceive that students' ability to form new interpretations from multiple sources can prevent them from plagiarism because the findings in table 3 showed a grand mean of 3.46. This finding corroborates that of Photinos (2017) and Sullivan (2014) who all shared the same thought when they asserted that the key to writing any well researched essay is information synthesis. They further posited that it entails ability to read well, to understand the main idea and developmental structure of source articles and analyzing many sources. Sullivan succinctly equated the writing of a good research paper with synthesis. This implies that students can only know how to write research report if they know how to synthesize many information for the purposes of creating a new meaning. In the same vein, Photinos (2017) had observed that research is replete with comparison of sources and analyzing those sources. This analysis across sources is what moves the researcher towards answering the research questions and drawing conclusions. To this end, Sparks and Deane (2015) sadly reported that students are not proficient in appropriately integrating information across sources.

Challenges associated with leveraging information synthesis as solutions to students' plagiarism are many and diverse. The results in table 4 revealed a grand mean of 3.16 because of a plethora of these challenges. Most of these factors are majorly on institution and students' lack of readiness to leverage information synthesis to find solutions to plagiarism. It is however





instructive to know that LIS educators disagreed that they lacked competence and commitment to teach information skills. However the result in table 4 on difficulty in teaching information synthesis is equally revealing, as a mean score of 2.64 indicated agreement that synthesis is a difficult skill to teach. Findings on Challenges agree with Din G et al., (2022) findings that despite the recognition and high perception of libraries of information literacy yet the programme is encumbered with challenges such as absence of IL in the curriculum, users' disinterestedness, lack of strong commitment of librarians and shortage of staff. This lack of commitment may not be unconnected to the slight difficulty in teaching information synthesis, difficulty in assessing information synthesis, and students' disinterest in the programme. Gladly, the findings further reveal that students who had lower percentage of plagiarism had participated actively in training while students with highly plagiarized works participated lowly in the instruction. This buttresses the place of instruction in information literacy mastery.

Many studies have reported instruction as being instrumental to achieving sustainable success in information synthesis/literacy against plagiarism (Chanchinmawia and Verma, 2018; Oriogu, et al, 2021; University of Texas Libraries, 2023). This implies that in the absence of these challenges, students, and their educators would overcome plagiarism issues. This stance is supported by Usman and Maidabino (2018) findings which revealed that despite the various challenges of the information literacy programme, students had moderate information literacy skill.

### **Conclusion and Recommendations**

Based on the findings of the study, it can be concluded that LIS educators perceive students' information synthesis skills of ability to read multiple sources and write down notes; ability to summarize contents from multiple sources, and ability to form new interpretations from multiple contents as sustainable solutions to students' plagiarism in the universities of Abia State. It could also be concluded that a number of challenges impede on using information synthesis instruction to solve students' problem of plagiarism. Thus, there is need to strengthen information synthesis along the lines of its ability to curb plagiarism in the country especially among university students.

Based on the findings of the study, the research recommends that:

1. LIS educators should demonstrate a sustained interest and commitment in conveying instructional content bearing in mind that they are almost the final arbiter in stemming out plagiarism.
2. LIS educators should form collaboration with faculty in their respective institutions to chart more effective ways of integrating information literacy into academic task and in assessing information synthesis skills.
3. Heads of institution should ensure a concerted and well-coordinated efforts at inculcating all aspect of information literacy in students' learning.
4. Students should be well sensitized on the significance of information instructions, their assessment and participation early enough in their academic endeavour.
5. Curriculum planners of university education should incorporate information use and assessment skills in all courses from first year to final year.

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