



LIBRARY ORIENTATION, INFORMATION LITERACY SKILLS AND RESEARCH PRODUCTIVITY AMONG POSTGRADUATE STUDENTS IN PRIVATE UNIVERSITIES, OSUN STATE, NIGERIA

DR. SOPHIA V. ADEYEYE

Department of Information Management,

Lead City University, Ibadan.

adeyeye.sophia@lcu.edu.ng

https://orcid.org/0000-0002-0398-2199

SURAJUDEEN, HAMMED OPEYEMI, CLN

Department of Library and Information Science,

Federal Polytechnic Ede, Osun State.

hammedopeyemi123@yahoo.com

+2347038040001

&

AJALA, MUFUTAU OLALEKAN, CLN

Department of Library and Information Science,

Federal Polytechnic Ede, Osun State.

ajalaolalekan94@gmail.com

+2348163323147

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ABSTRACT

In contemporary higher education, research productivity remains a critical indicator of scholarly development and academic excellence, particularly for postgraduate students who are expected to produce rigorous and independent research. Yet, despite the expansion of library facilities and electronic resources in Nigerian private universities, many postgraduate students continue to struggle with navigating library systems, identifying credible scholarly materials, applying effective search strategies and using appropriate citation and referencing techniques. In private universities in Osun State, these challenges persist even with the availability of orientation program memes, suggesting that gaps remain in students' mastery of essential information skills needed for quality research. This situation creates concern regarding the extent to which library orientation and information literacy competencies influence postgraduate students' research productivity within these institutions. This study therefore examined the effect of library orientation and information literacy skills on the research productivity of postgraduate students in private universities in Osun State, Nigeria. A descriptive survey design was employed, and a structured questionnaire was administered to postgraduate students across three purposively selected universities. Data were analysed using descriptive statistics and regression techniques. The findings revealed that students demonstrated high

levels of research productivity (Mean = 3.5), library orientation (Mean = 3.6), and information literacy skills (Mean = 3.7). The study concludes that strengthening library orientation program memes and integrating structured information literacy training into postgraduate curricula are imperative for enhancing research outcomes. It recommends continuous support in citation and referencing, expanded access to electronic resources and stronger collaboration between librarians and academic staff to foster a robust research culture.

Keywords: Library orientation, Information literacy skills, Research productivity, Postgraduate students, Private universities

Introduction

Research productivity among postgraduate students has become a crucial indicator of academic growth, intellectual engagement, and preparedness for future scholarly and professional endeavours. It reflects the students' ability to effectively undertake academic projects, produce quality research outputs, and contribute to the knowledge economy. In private universities across Osun State, the emphasis on research productivity is increasingly tied to the institutional goal of producing graduates who are not only consumers of information but also capable of creating new knowledge. Research productivity is a requirement for all postgraduate students that want to obtain any degree awards and also enables them to earn recognition nationally and internationally. Postgraduates must be versatile and advance in research and apply practicable knowledge as a result of research carried out to proffer solutions to the challenges encountered in providing quality education. Meanwhile, profound solution can be derived as a result of quality research.

Literally, research productivity is derived from two words 'research' and 'productivity'. Library orientation refers to a programme that is offered to first year entrants as an instruction to the library's resources as well as information on study skills and academic integrity to help postgraduates students make their first-year experience successful (Campbell & Waddington 2024). It gives the postgraduates students an overview of the library and its resources, timing, sections and physical location of resources. Library orientation offers opportunity for postgraduates' students to be taken round the various departments of the library, with handouts and leaflets underlining some important materials and key parts of the introductory lecture on the use of the library as well as providing brief but detail demonstration on how to find and access important information materials.

Library orientation is a critical component of academic support that helps students develop the skills needed to navigate and utilise library resources effectively (Oyedokun, 2025). It typically involves introducing students to the various services and tools available at the library, such as catalog systems, online databases, research guides, and citation tools. A well-executed library orientation not only familiarises students with physical and digital resources but also teaches them how to maximise these tools for

academic research, improving both the efficiency and quality of their work.

Information literacy skills, which refer to the ability to identify, locate, evaluate, and use information effectively. These skills are essential in today's digital and information-rich academic environment. Information literacy skills are the abilities that enable people to identify relevant information sources using different search criteria. Information literacy skills are often determining factors that affect the academic growth and research abilities of postgraduate students across disciplines. The lack of literature about postgraduate education students' information literacy in Nigeria, little is known about the skills they possess. Information literacy skills are generally necessary for postgraduate students to successfully use online library resources and conduct research. When students possess information literacy, they can comprehend the need for conducting content evaluation and have some reservations about it, as well as acknowledge their own prejudices and values.

Information literacy allows students to challenge conservative perspectives and acknowledge the relevance of information diversity. Information-literate students are better equipped to conduct independent research, avoid plagiarism, and synthesize diverse sources of information into coherent academic work. The absence or insufficiency of these skills can significantly hinder students' research productivity. In private universities, where emphasis is often placed on academic excellence and quality assurance, equipping students with both strong library orientation and information literacy skills is essential to enhancing their research capabilities.

Despite the availability of modern library facilities and digital resources, the extent to which postgraduate students in Osun State utilise these resources effectively and the role of library orientation and information literacy in this process remains underexplored. In Nigerian private universities, particularly in Osun State, the challenges related to research access, guidance, and resource availability can impede students' ability to navigate these stages effectively. However, improving access to information resources, strengthening faculty and library support, and implementing targeted information literacy program memes can help bridge these gaps and support students in completing the research process more efficiently and effectively (Caffrey, et.al. 2023).

This study, therefore, seeks to examine how library orientation and information literacy skills influence the research productivity of postgraduate students in selected private universities in Osun State. By investigating this relationship, the research aims to contribute to the improvement of academic support services and the enhancement of research engagement among students.

Statement of the Problem

Research productivity, a critical indicator of academic engagement and scholarly competence among postgraduate students, continues to be relatively low in private universities in Osun State. This is evidenced by the limited quality and quantity of research projects, poor application of research methodologies, and a general lack of originality and depth in students' academic work (Piran, & Tran, 2024). The inability of many students to produce high-quality research outputs raises concerns about the

foundational skills and support systems available to them. Two prominent factors that may contribute to this issue are inadequate library orientation and insufficient information literacy skills.

Many students enter university without a clear understanding of how to navigate academic resources, access credible databases, or utilise library services effectively skills typically introduced through structured library orientation programmes. In cases where such orientation exists, it is often inconsistently implemented or not tailored to meet diverse student needs. Additionally, the absence of strong information literacy skills such as identifying reliable sources, organizing information ethically, and applying citation standards further hampers students' ability to conduct meaningful and independent research. This underscores a pressing need to investigate how library orientation and information literacy skills collectively influence the research productivity of postgraduate students in private universities within Osun State, in order to inform institutional policies and strengthen academic support structures.

Objectives of the Study

The objective of this study is to examine the influence of library orientation and information literacy skills on the research productivity of postgraduate students in private universities in Osun State. The specific objectives are to:

- i. assess the level of library orientation provided to postgraduate students in private universities in Osun State;
- ii. identify the level of information literacy skills of postgraduate students in private universities in Osun State; and
- iii. assess the level of research productivity of postgraduate students in private universities in Osun State.

Research Questions

This study sets out to provide answers to the following research questions:

- i. What is the level of the research productivity of postgraduate students of private University in Osun State?
- ii. What is the level of library orientation of postgraduate students in private universities in Osun State?
- iii. What is the level of information literacy skills of postgraduate students in private universities in Osun State?

Review of Related Literature

Research productivity among postgraduate students is a multifaceted construct that encompasses the ability to generate coherent, original, and methodologically sound academic outputs such as term papers, research projects, and final-year theses. One of the critical but often under-explored determinants of research productivity is the level and quality of library orientation provided to students (Shah, et.al 2025). Library orientation, in the academic context, refers to structured programmes designed to acquaint students

with the physical and digital resources of the library, as well as the skills required to access, retrieve, and effectively utilise scholarly information. Empirical studies have consistently demonstrated that students who receive comprehensive and timely library orientation are more likely to develop the research competencies necessary for academic success.

Empirical research has consistently highlighted the link between library orientation and the research productivity of students, particularly at the postgraduate level. Library orientation programmes are designed to familiarise students with academic information environments, reduce library anxiety, and empower learners to make effective use of available resources. When orientation is absent or poorly implemented, students often underutilise institutional resources, which negatively affects their ability to produce rigorous and original research. Several Nigerian studies provide strong evidence of this relationship. Other scholars in their investigation at the Federal University of Agriculture, Abeokuta, found a positive correlation between library orientation and students' ability to engage in scholarly research (Ogbomo, 2023).

They reported that students who participated in structured orientation sessions demonstrated greater competence in retrieving relevant literature, applying referencing styles, and avoiding plagiarism compared to those who did not. Similarly, another researcher showed that postgraduate students in private universities who underwent comprehensive orientation were more consistent in their use of academic databases and institutional repositories, which translated into higher-quality theses and dissertations (Gautam, et. al 2025). These findings confirm that orientation is not merely introductory but integral to developing habits that underpin research productivity. Library orientation as a short lecture delivered by a librarian, usually in a large room space located within the library building or in the classroom. The content of the instructional lecture consists of information about the services and resources offered by the library. However, this content varies considerably according to the category of students involved (postgraduate students).

Library orientation is a factor of collaboration between lecturers (sometimes referred to as instructors) and the librarians in which librarians ask the lecturers are encouraged to bring the entire class in for an orientation. The librarians design the orientation to support the learning priorities and highlight the resources held by the library that are fundamental to completing the course and assigned projects (Burns, et al. 2025) Other materials covered in a complete orientation include: the library's Web page, how to find it and how to use it, the physical layout of the library, how to locate various resources and service points, check-out procedures and privileges, an explanation of basic services, searching the catalog, requesting books and articles, and searching databases. The intention is to expose the student to the basic skills needed in completing their future information needs independently information literacy.

The orientation also informs the student of the kinds of help the library can offer if they are having trouble finding what they need on their own. Many studies have therefore been carried out to examine the relationship between library orientation, information literacy skills and academic research of students. Library orientation is the most commonly used techniques of increasing students familiarity with the library and its resources; hence, a survey carried out within the Ventura College Accreditation Report of 2004, indicated

that there was a significant increase in students patronage statistics of the Ventura College Libraries as a result of increased library orientations to promote usage of library's resources and services (Wanja, 2024). Also, another study undertaken by the Dublin City University library discovered that the institution's revamped library orientation programme was a significant contributing factor in the increased popularity and renewed interest exhibited by patrons (Wanja, 2024).

Library orientation has long been regarded as a critical intervention in improving students' research productivity, with empirical studies affirming its significant impact on academic achievement. The primary aim of library orientation programmes is to familiarize students with the resources and services available within the library, enabling them to navigate complex information systems, evaluate sources critically, and improve their research skills. As postgraduate students increasingly rely on academic libraries for research, understanding the influence of structured library orientation on their research productivity is crucial. Several studies have explored this relationship, establishing that effective library orientation programmes directly contribute to the enhancement of students' research output. One of the researchers investigated the impact of library orientation on research productivity among postgraduate students in selected private universities in Nigeria.

Their study revealed that 78% of students who participated in structured library orientation sessions reported improved research skills, such as the ability to locate academic sources more efficiently and develop comprehensive literature reviews (DeFrain *et al.*, 2025). These students demonstrated higher engagement with library resources, which directly resulted in improved academic performance. Notably, students with higher engagement in library orientation activities also exhibited a marked increase in their research project quality, underscoring the significance of library orientation as a facilitator of enhanced research productivity.

Another significant study examined the role of library orientation in Indian universities. The study found that students who participated in comprehensive library orientation programmes reported greater confidence in conducting independent research (Mulimani, 2024). This confidence was reflected in a 50% increase in the number of research papers submitted by these researchers concluded that students who were exposed to structured library orientations were more likely to produce quality research papers, participate in academic discussions, and engage with scholarly materials outside of their coursework. This international study corroborates findings from Nigerian universities, providing strong evidence that library orientation programmes foster higher research engagement and improved academic outcomes.

The empirical review further emphasizes the relationship between library orientation and increased use of library resources, which leads to higher research productivity. Another researcher conducted a study at the University of Agriculture, Abeokuta, Nigeria, examining the impact of library orientation on the research productivity of postgraduate (Olusanya, *et al.* 2025). They discovered that students who underwent regular library orientation training exhibited higher proficiency in utilising online academic resources, such as academic databases and e-journals. These students were more successful in compiling literature reviews, sourcing academic articles, and synthesizing information for their research, ultimately leading to better academic performance and a more robust research output.

Their study highlights the importance of continuous library orientation programmes, not just as a one-time event, but as an ongoing educational tool that supports students throughout their academic careers. This handling requires efficient time management and is only possible when library professional keenly knows a good number of sources for each information and deploys information and communications technology supported with techniques to search and access e-resources. Their role is of information providers cum facilitators so are required to act as library managers understand the needs of the learning community and train and guide them accordingly to become more independent less relying on library staff for every matter which is one such basic motivation of information literacy

Methodology

This study adopted a descriptive survey research design to examine the relationship between library orientation, information literacy skills, and research productivity among postgraduate students in selected private universities in Osun State, Nigeria. The design was appropriate for systematically collecting data on existing conditions and for describing and analyzing the characteristics of the population under study. It also provided a reliable basis for testing hypotheses and identifying the extent to which library orientation and information literacy skills influence postgraduate students' research productivity. The study population comprised 800 postgraduate students from three purposively selected universities Redeemer's University, Adeleke University, and Bowen University.

Using the Krejcie and Morgan (1970) sample size determination table, a sample of 260 respondents was selected as adequate to ensure representativeness. Data were collected using a standardized structured questionnaire adapted from previous related studies and aligned with the research objectives. The instrument, organised into four sections (A–D), employed a four-point Likert scale to capture respondents' levels of agreement or extent of practice. Section A covered demographic information such as institution, age, and gender. Section B assessed research productivity; Section C measured library orientation; while Section D focused on information literacy skills.

The structure of the instrument ensured comprehensive coverage of all key study variables. The data obtained were coded and analysed using the IBM Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarise respondents' characteristics and describe the main variables of the study. These analytical procedures facilitated a clear understanding of the data patterns and supported the interpretation of relationships among the study variables in line with the research objectives.

Data Analysis and Results

Analysis of data collected through the questionnaires distributed and retrieved in order to assess the research productivity, library orientation, and information literacy skills of postgraduate students in private universities in Osun State. A total of two hundred and sixty (260) copies of the questionnaires were administered out of which two hundred and fifty (250) copies of the questionnaire were properly completed and retrieved while ten (10) copies were not retrieved. The results are indicated in Table 1.

Table 1: Return Rate

Questionnaire	Frequency	Percentage (%)
Returned	250	92.2
Not Returned	10	3.8
Total Distributed	260	100%

Field Survey, 2025

A total of 260 copies of the questionnaire were distributed proportionately across the three selected private universities in Osun State. Out of this number, 250 copies were returned and found valid for analysis, yielding a response rate of 92.2% which is adequate for the study.

Table 2: Level of Research Productivity among the Respondents

Statements	Very High Extent	High Extent	Low Extent	Very Low Extent	Mean
Individual Characteristics					
I possess the self-discipline necessary to conduct independent research consistently.	119 (47.6%)	96 (38.4%)	25 (10.0%)	10 (4.0%)	3.30
I am confident in my ability to identify a relevant research problem.	128 (51.2%)	94 (37.6%)	23 (9.2%)	5 (2.0%)	3.38
I can effectively manage my time between coursework and research activities.	123 (49.2%)	102 (40.8%)	15 (6.0%)	10 (4.0%)	3.35
I have strong motivation to publish my research in academic outlets.	144 (57.6%)	83 (33.2%)	18 (7.2%)	5 (2.0%)	3.46
I actively seek new knowledge to improve the quality of my research	129 (51.6%)	94 (37.6%)	21 (8.4%)	6 (2.4%)	3.38
Weighted Mean					3.37
Institutional Characteristics					
My university provides sufficient access to digital and physical research resources.	132 (52.8%)	80 (32.0%)	31 (12.4%)	7 (2.8%)	3.35
The academic calendar allows enough time for meaningful research work.	104 (41.6%)	106 (42.4%)	21 (8.4%)	19 (7.6%)	3.18
My department organises seminars or workshops that enhance research productivity.	97 (38.8%)	128 (51.2%)	14 (5.6%)	11 (4.4%)	3.24
The ICT infrastructure (internet access, software tools, etc.) supports my research needs.	123 (49.2%)	99 (39.6%)	22 (8.8%)	6 (2.4%)	3.36
I have access to qualified staff for research supervision and guidance.	125 (50.0%)	85 (34.0%)	21 (8.4%)	19 (7.6%)	3.26
Weighted Mean					3.28

Leadership Characteristics

The leadership of my department promotes a research-oriented culture.	153 (61.2%)	67 (26.8%)	20 (8.0%)	10 (4.0%)	3.45
Research expectations and goals are clearly communicated by academic leadership.	132 (52.8%)	73 (29.2%)	21 (8.4%)	24 (9.6%)	3.25
I receive encouragement and recognition for my research efforts from academic leaders.	89 (35.6%)	145 (58.0%)	11 (4.4%)	5 (2.0%)	3.27
Departmental leaders ensure accountability in postgraduate research timelines.	113 (45.2%)	102 (40.8%)	22 (8.8%)	13 (5.2%)	3.26
Supervisors and heads of units act as role models in conducting and publishing research.	155 (62.0%)	55 (22.0%)	28 (11.2%)	12 (4.8%)	3.41

Weighted Mean**3.33**

Table 2 presents the descriptive statistics on the level of research productivity among the respondents. The findings reveal that most respondents demonstrated a high degree of self-discipline necessary for conducting independent research, with a mean score of 3.30. This indicates that postgraduate students in private universities generally possess strong self-regulatory habits essential for sustaining research engagement. Similarly, the respondents expressed a high level of confidence in identifying relevant research problems (mean = 3.38), showing that most students are capable of defining clear and focused research topics, a skill crucial for effective research productivity.

Time management was also rated highly (mean = 3.35), with about 90% of respondents indicating that they effectively balance coursework and research activities. This suggests that postgraduate students in the study area have developed the discipline to allocate time efficiently, which contributes positively to their research outcomes. Motivation to publish was particularly strong (mean = 3.46), as the majority reported being highly driven to disseminate their research findings. Likewise, a large proportion of the respondents (mean = 3.38) indicated that they actively seek new knowledge to improve their research competence. These findings collectively show the respondents exhibit high levels of personal attributes that support research productivity, though a small minority may require institutional or supervisory support to enhance these traits.

Regarding institutional characteristics, the results indicate that access to digital and physical research resources was rated high (mean = 3.35), suggesting that most students enjoy adequate access to relevant research materials. However, some respondents reported limited access, indicating a need for continuous investment in library and ICT infrastructure. The academic calendar was rated moderately supportive (mean = 3.18), showing that while most students believe they have reasonable time for research, some feel constrained by tight academic schedules. Departmental organisation of research-related seminars and workshops was rated positively (mean = 3.24), implying that institutional structures moderately enhance research productivity. In terms of technological and supervisory support, ICT infrastructure recorded the highest mean score (3.36), signifying strong technological backing for research activities across the

universities. Access to qualified academic supervisors was also viewed positively (mean = 3.26), demonstrating that most postgraduate students have sufficient guidance for effective research work, although a small segment of the population still faces challenges related to supervision access.

With respect to leadership characteristics, the results show a strong research-oriented departmental culture (mean = 3.45), highlighting that academic leadership in these institutions promotes an environment conducive to research excellence. Communication of research goals was rated fairly high (mean = 3.25), though a small proportion of students felt that departmental objectives could be articulated more clearly. Encouragement and recognition from academic leaders (mean = 3.27) and leadership accountability for research timelines (mean = 3.26) were both positively perceived, reflecting supportive supervisory and departmental structures. Leadership role modeling scored high (mean = 3.41), indicating that most postgraduate students view their supervisors and department heads as strong research mentors whose attitudes positively influence their motivation and productivity. Overall, the results suggest that the respondents exhibit high personal commitment and operate within supportive institutional and leadership environments that collectively enhance research productivity. However, certain areas, such as improved time allocation, resource accessibility, and supervisory reach, require further strengthening to maximize students' research outcomes.

Table 3: Level of Library Orientation of the Respondents

Statements	Very High Extent	High Extent	Low Extent	Very Low Extent	Mean
Individual Characteristics					
I possess the self-discipline necessary to conduct independent research consistently.	119 (47.6%)	96 (38.4%)	25 (10.0%)	10 (4.0%)	3.30
I am confident in my ability to identify a relevant research problem.	128 (51.2%)	94 (37.6%)	23 (9.2%)	5 (2.0%)	3.38
I can effectively manage my time between coursework and research activities.	123 (49.2%)	102 (40.8%)	15 (6.0%)	10 (4.0%)	3.35
I actively seek new knowledge to improve the quality of my research	129 (51.6%)	94 (37.6%)	21 (8.4%)	6 (2.4%)	3.38
Weighted Mean					3.37
Institutional Characteristics					
My university provides sufficient access to digital and physical research resources.	132 (52.8%)	80 (32.0%)	31 (12.4%)	7 (2.8%)	3.35
The academic calendar allows enough time for meaningful research work.	104 (41.6%)	106 (42.4%)	21 (8.4%)	19 (7.6%)	3.18
My department organises seminars or workshops that enhance research productivity.	97 (38.8%)	128 (51.2%)	14 (5.6%)	11 (4.4%)	3.24
The ICT infrastructure (internet access, software tools, etc.) supports my research needs.	123 (49.2%)	99 (39.6%)	22 (8.8%)	6 (2.4%)	3.36

I have access to qualified staff for research supervision and guidance.	125 (50.0%)	85 (34.0%)	21 (8.4%)	19 (7.6%)	3.26
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Weighted Mean **3.28**

Leadership Characteristics

The leadership of my department promotes a research-oriented culture.	153 (61.2%)	67 (26.8%)	20 (8.0%)	10 (4.0%)	3.45
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Research expectations and goals are clearly communicated by academic leadership.	132 (52.8%)	73 (29.2%)	21 (8.4%)	24 (9.6%)	3.25
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I receive encouragement and recognition for my research efforts from academic leaders.	89 (35.6%)	145 (58.0%)	11 (4.4%)	5 (2.0%)	3.27
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Departmental leaders ensure accountability in postgraduate research timelines.	113 (45.2%)	102 (40.8%)	22 (8.8%)	13 (5.2%)	3.26
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Supervisors and heads of units act as role models in conducting and publishing research.	155 (62.0%)	55 (22.0%)	28 (11.2%)	12 (4.8%)	3.41
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Weighted Mean **3.33**

The orientation motivated me to explore how the library could support my academic and research goals.	153 (61.2%)	73 (29.2%)	16 (6.4%)	8 (3.2%)	3.48
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Weighted Mean **3.40**

Responses

I attended the full session(s) of the library orientation offered by my university.	122 (48.8%)	65 (26.0%)	34 (13.6%)	29 (11.6%)	3.12
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I asked questions or interacted with facilitators during the library orientation.	153 (61.2%)	67 (26.8%)	12 (4.8%)	18 (7.2%)	3.42
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I can now independently locate books, journals, and other materials in the library as a result of the orientation.	118 (47.2%)	76 (30.4%)	32 (12.8%)	24 (9.6%)	3.15
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I use the library's online catalogue and databases more effectively since attending the orientation.	164 (65.5%)	25 (10.0%)	28 (11.2%)	33 (13.2%)	3.28
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The orientation has positively changed how I approach research and information gathering	117 (46.8%)	66 (26.4%)	45 (18.0%)	22 (8.8%)	3.11
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Weighted Mean **3.22**

Reinforcement

The library offers refresher sessions or additional training beyond the initial orientation.	127 (50.8%)	62 (24.8%)	39 (15.6%)	22 (8.8%)	3.18
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Library staffs are available and approachable whenever I need help using library resources.	98 (39.2%)	65 (20.6%)	43 (17.2%)	44 (17.6%)	2.87
I receive periodic updates or emails from the library about new resources and services.	128 (51.2%)	64 (25.6%)	32 (12.8%)	26 (10.4%)	3.18
My university encourages continued use of library resources throughout my programme.	143 (57.2%)	59 (23.6%)	31 (12.4%)	17 (6.8%)	3.31
I am regularly reminded or encouraged to apply what I learned during orientation in my academic work.	114 (45.6%)	86 (34.4%)	31 (12.4%)	19 (7.6%)	3.22
Weighted Mean					3.15

The findings on library orientation participation and engagement among the respondents revealed generally high levels of involvement and positive perceptions. A large proportion of students (51.6%) reported that they were *very highly encouraged or formally invited* to attend the library orientation, while 31.2% rated the encouragement as high. The mean score of 3.28 indicates a moderately high level of institutional effort to promote attendance. This shows that most postgraduate students felt well-motivated and adequately informed about the importance of participating in the library orientation, an essential starting point for effective research engagement. The statement on the *clarity of purpose of the library orientation* received the highest mean score of 3.58, with 70.8% of respondents rating it "very high."

This suggests that universities in the study area effectively communicate the objectives and relevance of the library orientation program memo, which helps students appreciate its value for their academic and research success. Similarly, the *timing of the library orientation* was rated positively (mean = 3.33), showing that most students found the schedule convenient and supportive of their participation. Moreover, the *content of the library orientation* was found to be engaging and relevant, as 56.4% of respondents reported that the topics introduced during the sessions sparked their interest in using library resources, producing a mean score of 3.34. This finding implies that the orientation effectively motivates students to utilise library facilities more actively. Correspondingly, the orientation was reported to *highly motivate students to explore how the library could support their academic and research goals* (mean = 3.48).

Altogether, these results reflect a generally positive perception of library orientation among postgraduate students, underscoring its effectiveness in fostering initial research enthusiasm and resource utilisation. Regarding *attendance and participation*, the results indicate a moderate level of full attendance, with 48.8% of students reporting that they attended the entire orientation session and a mean score of 3.12. However, active participation during the sessions was strong, as 61.2% of respondents stated that they engaged by asking questions or interacting with facilitators (mean = 3.42). This suggests that although some students may not have attended all sessions, those who did participate showed commendable engagement and curiosity an important factor in learning retention. In terms of skill acquisition, 47.2% of the respondents strongly agreed that the orientation helped them *independently locate books, journals, and other library*

materials, with a mean score of 3.15, indicating a moderate but meaningful improvement in independent research skills.

Similarly, 65.5% reported that they could now *use the library's online catalogue and databases more effectively*, yielding a mean score of 3.28. This underscores the orientation's contribution to enhancing students' information retrieval skills an essential component of research productivity. Furthermore, 46.8% of the students strongly agreed that the orientation *positively changed their approach to research and information gathering*, with a mean score of 3.11. This demonstrates that the orientation contributed to building students' confidence and competence in handling academic research, though there remains room for greater impact. The findings on *continuous library support* revealed varying levels of institutional reinforcement after the initial orientation. Half of the respondents (50.8%) indicated that the library *offers very high refresher or follow-up sessions*, with a mean score of 3.18, suggesting that many universities maintain some level of continuous training to strengthen information literacy. However, *staff availability and approachability* were rated relatively low (mean = 2.87), indicating that some students encounter challenges in accessing direct assistance from library staff when needed.

This finding highlights a potential area for service improvement to enhance the overall user experience and research support. The libraries were reported to perform well in *periodic updates and communication of new resources* (mean = 3.18), showing that most postgraduate students remain informed about newly acquired materials and services. University encouragement for *continuous use of library resources* received a strong mean score of 3.31, reflecting institutional commitment to sustaining students' engagement with library facilities throughout their programmes. Additionally, 45.6% of students confirmed that they regularly receive *reminders to apply what they learned during the orientation* in their coursework and research (mean = 3.22). This indicates a consistent reinforcement of learning that helps students apply library skills in practical academic contexts. In summary, the results demonstrate that postgraduate students in private universities in Osun State generally perceive library orientation as effective, well-timed, and motivating. It fosters active participation, enhances resource discovery skills, and promotes a more research-oriented mindset. However, gaps remain in the areas of staff availability and continuous individualized support, suggesting that university libraries should strengthen post-orientation mentorship and ensure timely assistance to sustain students' information literacy growth and research productivity.

Table 4: Level of Information Literacy Skills of the Respondents

Statements	Very High Extent	High Extent	Low Extent	Very Low Extent	Mean
Initiation					
I can identify a clear research question or problem at the beginning of my research.	109 (43.6%)	78 (31.2%)	39 (15.6%)	24 (9.6%)	3.09
I am able to recognise when I need more information to complete a research task.	136 (54.4%)	59 (23.6%)	28 (11.2%)	27 (10.8%)	3.22
I can determine the scope of my research topic and what information is necessary to address it.	87 (34.8%)	108 (43.2%)	42 (16.8%)	13 (5.2%)	3.08
Weighted Mean					3.13
Selection					
I can select reliable and credible sources from a variety of academic platforms.	115 (46.0%)	75 (30.0%)	35 (14.0%)	25 (10.0%)	3.12
I am able to choose the most appropriate research materials (books, journals, articles) for my study.	123 (49.2%)	68 (27.2%)	31 (12.4%)	28 (11.2%)	3.14
I know how to prioritize sources based on their relevance to my research topic.	131 (52.4%)	93 (37.2%)	20 (8.0%)	6 (2.4%)	3.40
Weighted Mean					3.22
Exploration					
I am comfortable using academic databases to search for information relevant to my research.	106 (42.4%)	86 (34.4%)	38 (15.2%)	20 (8.0%)	3.21
I can efficiently search both online and offline resources to find academic materials.	153 (61.2%)	64 (25.6%)	19 (7.6%)	14 (5.6%)	3.42
I know how to refine search queries to explore different types of sources (e.g., journals, reports, articles).	127 (50.8%)	89 (35.6%)	26 (10.4%)	8 (3.2%)	3.34
Weighted Mean					3.32
Formulation					
I am able to evaluate the credibility and relevance of the information I find.	94 (37.6%)	121 (48.4%)	25 (10.0%)	10 (4.0%)	3.20
I can synthesize information from multiple sources to build a coherent argument in my research.	118 (47.2%)	79 (31.6%)	27 (10.8%)	26 (10.4%)	3.16
I am capable of organizing research findings logically and systematically.	164 (65.6%)	53 (21.2%)	24 (9.6%)	9 (3.6%)	3.49
Weighted Mean					3.27
Collection					
I am able to collect data and information from reliable sources for my research.	100 (40.0%)	105 (42.0%)	31 (12.4%)	14 (5.6%)	3.12

I organise the information I gather into categories that support my research objectives.	123 (49.2%)	82 (32.8%)	29 (11.6%)	16 (6.4%)	3.25
I keep track of all the sources I consult in order to cite them properly later.	97 (38.8%)	107 (42.8%)	28 (11.2%)	18 (7.2%)	3.13
Weighted Mean					3.17
Presentation					
I am confident in my ability to present my research findings in a clear and structured manner.	143 (57.2%)	78 (31.2%)	24 (9.6%)	5 (2.0%)	3.44
I consistently use proper citation and referencing formats when presenting my research.	119 (47.6%)	96 (38.4%)	23 (9.2%)	12 (4.8%)	2.29
I can effectively communicate the key points of my research through both written reports and presentations.	90 (36.0%)	116 (46.4%)	32 (12.8%)	12 (4.8%)	3.14
Weighted Mean					2.96

The results indicate that the respondents possess generally strong information literacy skills across the major stages of the information search process. At the Initiation stage, students showed good ability in defining research problems, identifying information needs and determining the scope of their topics, with mean scores above 3.0. In the Selection stage, they demonstrated substantial competence in identifying reliable sources and prioritizing relevant materials, recording some of the highest mean scores (up to 3.40). During the Exploration stage, students exhibited strong ability to search efficiently across digital and print platforms, refine search strategies, and use academic databases, although a minority still struggled with advanced search tools. At the Formulation stage, they performed well in evaluating sources, synthesizing information and organizing findings logically, with organisation of research outcomes being the strongest skill (mean = 3.49).

The Collection stage results also reflected solid competence in gathering data, organizing materials and keeping records of consulted sources, though some students reported challenges in maintaining consistent citation tracking. In the Presentation stage, students were confident in structuring and communicating research findings; however, citation and referencing skills recorded the weakest performance (mean = 2.29), indicating a major area requiring improvement. Overall, the findings show that postgraduate students are generally proficient in most information literacy areas but need targeted support in citation accuracy, database mastery and systematic source management to further strengthen their research productivity.

Discussion of the Findings

The findings of this study have revealed that library orientation and information literacy skills have a significant and positive influence on the research productivity of postgraduate students in private universities in Osun State. The results from the descriptive analysis show that the respondents generally reported a high level of research productivity, which was influenced by individual, institutional, and leadership factors. With regard to individual characteristics, the majority of the students demonstrated high levels of self-discipline,

confidence in identifying research problems, effective time management, motivation to publish, and a willingness to seek new knowledge. These attributes are essential for sustaining research engagement and output, supporting the view of researcher that personal research skills and motivation are critical drivers of academic productivity (Kowalczuk-Wałędziak *et al.* 2024).

The institutional characteristics also played a supportive role in enhancing research productivity. Most students indicated adequate access to both physical and digital resources, strong ICT infrastructure, and beneficial departmental activities such as seminars and workshops. However, the mean score for the academic calendar allowing sufficient time for research was relatively lower, suggesting that time constraints remain a challenge for some students. Furthermore, the leadership characteristics in the respondents' departments were generally perceived as highly supportive. Students affirmed that their leaders promoted a research-oriented culture, communicated expectations clearly, ensured accountability, and acted as role models in research and publication. This finding aligns with another researcher who emphasised that academic leadership plays a pivotal role in shaping the research culture within universities (Peyravinejad, *et al.*, 2025).

Analysis of library orientation indicated that the programmes in the studied universities were well-structured, timely, and relevant. Most respondents reported that the purpose of the orientation was clearly communicated, the content was engaging, and the sessions motivated them to utilise library resources more effectively for their research. However, reinforcement elements such as library staff availability and approachability recorded lower mean scores, indicating an area for possible improvement. The findings on information literacy skills revealed that postgraduate students possessed generally strong competencies in initiating research, selecting credible sources, exploring a range of information resources, formulating coherent arguments, collecting data systematically, and presenting findings effectively.

Nevertheless, citation and referencing emerged as a comparatively weak area, with the lowest mean score in this category, indicating the need for targeted skills development. Overall, the findings support the argument that a strong research culture in universities requires the combined influence of well-designed library orientation programmes and robust information literacy skills training. This aligns with the constructivist learning perspective, which posits that learners actively construct knowledge when provided with appropriate tools, guidance, and opportunities. Strengthening these areas particularly in relation to continuous skill reinforcement, staff availability, and citation proficiency will further enhance the research productivity of postgraduate students in private universities in Osun State.

Conclusion

The study established that individual characteristics such as self-discipline, motivation, and effective time management, along with institutional provisions like adequate access to resources, robust ICT infrastructure, and supportive academic leadership, create an enabling environment for research productivity. However, certain challenges, such as insufficient time allocation for research within the academic calendar, limited library staff availability, and weaknesses in citation and referencing skills, remain

areas requiring targeted intervention.

The analysis of postgraduate students' information literacy skills in private universities in Osun State shows that they possess generally strong competencies across the major stages of the information search process. Students demonstrated commendable ability in defining research problems, selecting credible sources, exploring diverse information platforms and organising research findings coherently. Their confidence in presenting research outcomes further reflects a solid foundation in key academic skills. However, notable weaknesses persist in areas such as accurate citation and referencing, advanced use of academic databases and systematic tracking of information sources. These gaps highlight the need for strengthened, continuous information literacy instruction, with particular emphasis on practical training in citation management tools and advanced search strategies. Enhancing these areas will not only improve students' overall research competence but also contribute significantly to the quality and productivity of postgraduate research within private universities in Osun State.

Recommendations

1. Based on the findings of this study, the following recommendations are made to enhance the research productivity of postgraduate students in private universities in Osun State:
2. Private Universities should ensure that library orientation sessions are comprehensive, engaging, and tailored to the academic needs of postgraduate students. These programmes should be reinforced periodically throughout the academic year to maintain students' awareness and effective use of available resources.
3. Information literacy should be treated as an ongoing developmental process rather than a one-time training. Workshops, seminars, and online modules should be organised regularly to improve students' competencies in searching, evaluating, and using information. Special attention should be given to strengthening citation and referencing skills, identified as the weakest area in this study.
4. Library management in Private Universities should prioritise the accessibility and approachability of staff to encourage students to seek guidance. This can be achieved by increasing the number of professional librarians on duty and providing regular training in user support and communication skills.
5. University administrators in private universities should review academic schedules to ensure sufficient time is allocated for postgraduate research activities. Reduced time pressure will enable students to conduct more in-depth and rigorous research.

Continuous investment should be made in ICT facilities and digital library subscriptions to ensure seamless access to current, credible, and relevant academic resources for postgraduate research.

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AUTHORS' PROFILES

Dr. Sophia V. Adeyeye, CLN, a Certified Librarian of Nigeria is a lecturer at the Department of Information Management at the Lead City University, Ibadan, Nigeria. She had her bachelor's and Master's degree from the Department of Library and Information Studies and PhD from the Department of School Library and Media Technology, University of Ibadan. Her research interests are in bibliotherapy, innovation and creativity in school library, indigenous knowledge and information literacy. She has also attended both national and international academic conferences where she presented scholarly papers. Dr. Adeyeye has to her credit publications in both local and international reputable journals, as well as chapters in edited books. She also has a registered Non-Governmental Organization (NGO) named Books Heal Initiative which has served as a platform to further promote the reading culture and formation of book clubs within my society. She intends to use storybooks to help the young adults overcome issues bothering them and become lifelong learners. She likes working with children

and listening to music. She is a member of professional associations like Nigerian Library Association (NLA), Nigerian School Library Association (NSLA), International Association of School Librarianship (IASL), The International Federation of Library Associations and Institutions (IFLA) and a fellow of the National Institute of Office Administrators and Information Managers (NIOAIM). She is an elected member Standing Committee for Education and Training Section at IFLA (2021-2025).



Mr. Ajala is an Assistant Lecturer at the Department of Library and Information Science, Federal Polytechnic Ede, where have been conducting research for over 6 years. I had my B.Sc. (BLIS) in Library and Information Science from Lead City University Ibadan in 2021 and M.Sc., (MLIS) in Library and Information Science from Lead City University Ibadan. I began my career as an Assistant Library Officer, Library Officer and Librarian II respectively for 9 years where I gained valuable practical experience in Library operations and user services. My research interest includes Basic Computer Operating Systems, Library Automation Digital Library, Basic Reference Tools and Services, Library Application Software .



Mr. Surajudeen is an Assistant Lecturer at the department of Library and Information Science, Federal Polytechnic Ede, where have been conducting research for over 6 years. I had my BSc (BLIS) in Library and Information Science from Lead City University Ibadan in 2021 and MSc, (MLIS) in Library and Information Science from Lead City University Ibadan. I began my career as an Assistant Library Officer, Library Officer and Librarian II respectively for 9 years where I gained valuable practical experience in Library operations and user services. My research interest includes Basic Computer Operating Systems, Digital Library, Basic Reference Tools and Services.