

## Analysis of Online Academic Writing Tools Usage among Postgraduate Students in North-west Nigeria

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### ABSTRACT

This study investigates the usage of online academic writing tools and reference management software among postgraduate students in North-west Nigeria. A descriptive survey design was employed, with a sample of 420 doctoral students from four regional universities. Data was collected using a structured questionnaire and analyzed using descriptive and inferential statistics. The findings reveal that Google Docs and Authorea are the most widely used online tools for academic writing and collaboration, followed by Overleaf and OneNote. Surprisingly, Microsoft Office 365 showed lower adoption rates. Regarding reference management software, Mendeley and Zotero emerged as the clear favourites, with EndNote and Citavi also showing significant usage. Statistical analysis indicated significant differences in the use of online tools for academic writing and collaboration and the types of reference management software used among postgraduate students. These differences could be attributed to individual preferences, institutional recommendations, or varying levels of technological literacy. The study contributes to understanding digital literacy and technology adoption in higher education in developing countries. It provides valuable insights for educational institutions, policymakers, and software developers to support postgraduate students' academic endeavours. Recommendations include implementing digital literacy programs and developing standardized sets of recommended tools to enhance research productivity and collaboration among doctoral students in North-west Nigeria.

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## 1. INTRODUCTION

The rapid digitalization of academic processes has significantly transformed the landscape of scholarly writing and research collaboration. While studies have shown high adoption rates in developed countries, the situation in developing nations, particularly in Nigeria, presents a more complex picture (Gbesoevi et al., 2024; Irele, 2024; Brunetti, et al, 2023). Adopting online collaborative tools in Africa is spreading due to their capabilities, but researchers face challenges in maximizing their full potential. These challenges include poor information and communication technology infrastructure, absence of policy, and inadequate funding, which have been identified as major obstacles to the practical digital preservation of theses and dissertations in Nigerian university libraries (Agada-Mba, et al., 2024; Akinola, et al., 2024).

Globally, the adoption of online academic writing tools among postgraduate students has seen a substantial increase, with a 2023 study reporting that 78% of graduate students now regularly utilize at least one digital writing platform (Zhang & Wu, 2024). This trend is particularly evident in the use of reference management software (RMS), where a survey across 72 higher education institutions in the United Kingdom found that over 75% of doctoral students employed social media tools for referencing (Miah & Hasan, 2023). The increasing adoption of social reference managers allows users to save, bookmark, download, and share research articles with other scholars, enhancing collaboration and knowledge sharing in academic communities (Mohammadi et al., 2018). These platforms not only assist in the referencing process but also provide additional features for networking and discovery, making them valuable tools for researchers and students alike (Eid & Al-Jabri, 2023). The integration of artificial intelligence (AI) in academic writing has further accelerated this shift, with AI-powered writing tools now playing a crucial role in enhancing the writing structure, content, and style of students.

In Africa, the adoption of online academic writing tools has been growing, albeit at a slower pace compared to global averages. A 2022 study conducted across five African countries revealed that approximately 62% of postgraduate students were familiar with at least one form of online writing tool, with a particular emphasis on reference management software (Nsoesie et al., 2024). However, the utilization rates varied significantly, with only 45% reporting regular use. In West Africa specifically, a survey of postgraduate students in Ghana and Nigeria indicated that while awareness of these tools was high (73%), actual implementation in academic work remained moderate (51%) (Adebayo & Okonkwo, 2023).

The landscape of online academic writing tool usage among postgraduate students in Nigeria presents a mixed picture. A study conducted in private universities in South-West Nigeria found a significant positive correlation between information literacy skills and the use of electronic resources among postgraduate students (Okeji & Eze, 2024). However, the same research highlighted that many students faced difficulties in accessing and retrieving information from external databases, indicating a need for improved digital literacy (Adeniran, & Onuoha, 2018). The types of reference management software frequently used by postgraduate students globally include EndNote (49%), BibTeX (11%), and Mendeley (9%) (Pathak & Johnson, 2018). However, preferences vary by region and discipline. In Nigeria, a 2023 survey of postgraduate students across three federal universities found that Zotero was the most popular RMS (38%), followed by Mendeley (27%) and EndNote (18%) (Adeyemi, et al., 2020).

This divergence from global trends highlights the importance of contextual factors in tool adoption and usage. Academic writing and collaboration have been significantly impacted by these digital tools (Hoang & Hoang, 2022). A 2024 study on collaborative writing in academia emphasized the growing importance of cloud-based platforms and AI writing tools in facilitating teamwork and improving research quality (Järvelä et al., 2023). These tools not only enhance the writing process but also promote a culture of knowledge sharing and continuous improvement among peers (Rahimi & Fathi, 2022). In North-West Nigeria specifically, recent data on the usage of online academic writing tools is limited (Mijwil et al., 2023), underscoring the importance of further research in this region.

Previous studies of Agada-Mba et al. (2024); Adeyemi et al. (2023); Chen (2022); and Oladipo et al. (2022) revealed significant variances across various platform types regarding perceived effectiveness, with Mendeley being found to be mostly effective compared to other platforms. Conversely, the study by Eze et al. (2021); and Nwosu et al. (2020) found that there was a relatively uniform uptake of basic online collaboration tools among postgraduate students across different institutions. The findings of Olofsson et al. (2017); Genlott and Grönlund (2016); Fortunati and Vincent (2014); and Taipale (2014) confirmed that Google Docs was widely preferred due to its ease of use and real-time collaboration features. While, the finding of Erixon (2016) revealed that while most students were positive about digital writing, there was still a significant preference for traditional writing methods among some groups.

Another study conducted by Adeyemi et al. (2020); Mahawar et al. (2020); Bugyei et al. (2019); and Amrutha et al. (2018) revealed that EndNote and Mendeley were the most commonly used RMS, with varying levels of awareness and usage among faculty members. However, Osmani et al. (2016); and Ram and Anbu (2014) studies confirmed that there was a more uniform pattern of RMS usage among researchers, with less significant differences in the types of software used. The research confirmations of Mahawar et al. (2021); Oshiname and Ajuwon (2020); and Parabhoi et al. (2018) state that Mendeley was the most popular RMS, used by 55% of respondents, followed by EndNote at 40%. Conversely, Hendal (2019) on faculty members at Kuwait University found that EndNote was the most widely used RMS. Thus, previous research lacks a detailed analysis of how online academic writing tool usage varies across different academic disciplines among postgraduate students in North-west Nigeria.

This gap in knowledge hinders the development of targeted strategies to enhance digital literacy and optimize the use of these tools in the region's academic institutions. By addressing this gap, the study aims to analyse the current state of online academic writing tools and reference management software frequently used among postgraduate students in North-West Nigeria. Understanding these patterns will help academic institutions and policymakers design targeted strategies to enhance digital literacy and promote effective usage of academic tools in postgraduate education. Thus, the research questions guiding this study are: **Research Question 1:** What are the online tools used for academic writing and collaboration among postgraduate students in North-west, Nigeria? **Research Question 2:** What are the types of reference management software frequently used by postgraduate students in north-west, Nigeria?

The formulation of the hypotheses in this study is grounded in existing literature on the adoption and usage of online academic writing tools and reference management software. Several previous studies have highlighted significant variations in the types of digital tools

employed by postgraduate students across different regions and educational institutions. For example, research by Okeji and Eze (2024) indicated that postgraduate students' preferences for online writing tools varied significantly based on institutional recommendations, ease of access, and individual proficiency. Similarly, Adeyemi et al. (2023) observed differences in adopting reference management software across various universities in Nigeria, identifying Mendeley and Zotero as the most frequently used platforms. These studies suggest potential disparities in tool usage among students from different regions.

Building on these findings, the current study proposes the following hypotheses to examine whether similar patterns exist among postgraduate students in North-West Nigeria: **H<sub>01</sub>**: There is no significant difference in the online tools used for academic writing and collaboration among postgraduate students in North-west, Nigeria. **H<sub>02</sub>**: There is no significant difference in the types of reference management software frequently used among postgraduate students in north-west, Nigeria.

## 2. METHODS

The researchers meticulously employed a descriptive survey design, a widely used research method that systematically collects data to describe the characteristics of a population or phenomenon (Creswell, 2014). This design was chosen because it allows for collecting detailed information about educational practices and phenomena without manipulating the environment. According to Creswell (2014), descriptive surveys are particularly effective for studies exploring existing conditions, practices, or trends in a population, making them suitable for this research. This rigorous approach provides a comprehensive and reliable picture of the current state of e-learning adoption and its impact on research productivity among postgraduate students. The study population comprises postgraduate students from four Nigerian universities: Ahmadu Bello University, Zaria; Bayero University, Kano; Aliko Dangote University of Science and Technology (ADUST), Kano; and Kaduna State University, Kaduna. The total population of 30,774 students includes doctoral, master's, MPhil, and postgraduate diploma students. A sample of 440 students was selected, with 110 respondents from each university, based on the recommendations of the Research Advisory (2010).

The researcher utilized a combination of stratified and simple random sampling techniques, ensuring a diverse and representative sample. Stratified sampling allowed for the division of the population into strata based on gender, programme, and degree level, ensuring adequate representation of each subgroup. This approach captures the diversity within the postgraduate student population, leading to more precise estimates and greater statistical power. Simple random sampling within each stratum maintained the principle of equal probability of selection, reducing potential human bias and improving overall sample representativeness.

Data collection was conducted using a structured questionnaire developed to gather information on students' usage of e-learning platforms and their impact on research productivity. The questionnaire was validated by experts in information technology and education from Ahmadu Bello University, Zaria, and pilot-tested at the Nigerian Defence Academy (NDA) in Kaduna before full-scale administration. Cronbach's alpha was used to assess the internal consistency reliability of the questionnaire items, yielding a reliability index of 0.83.

The researchers employed two methods of data collection: face-to-face administration and distribution through Google Forms, which were posted to various postgraduate WhatsApp and Telegram groups. Descriptive statistics, including frequencies, percentages, and means, were used to answer the research questions. In contrast, inferential statistics, specifically t-tests, were used to test the null hypotheses at a 0.05 level of significance.

### 3. FINDINGS AND DISCUSSION

Out of the sampled respondents of four hundred and forty (440) participants selected for the study, a total of four hundred and twenty (420) were successfully retrieved and coded, the results are presented in this section.

**Research Question 1:** What are the online tools for postgraduate students for academic writing and collaboration in North-west, Nigeria?

**Table 1.** Online Tool Use for Academic Writing and Collaboration.

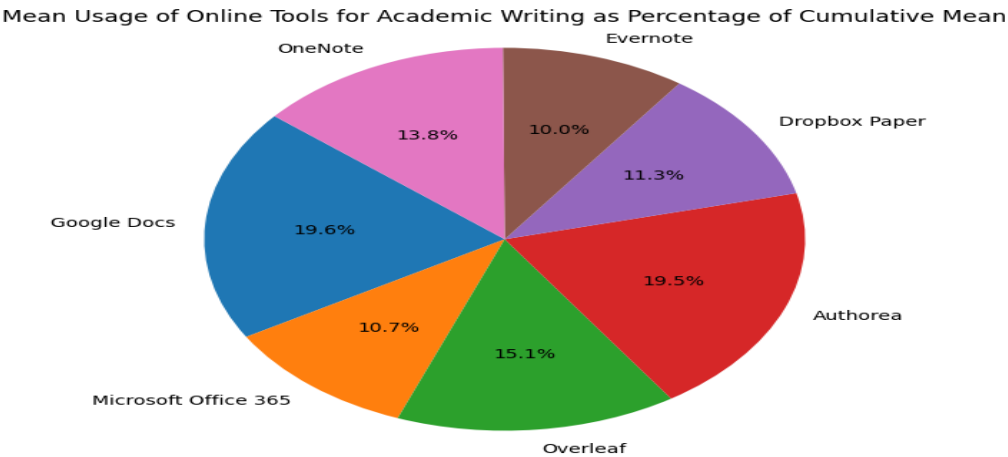
Item	Mean	Standard Deviation	Decision
Google Docs	3.80	.19	Agree
Microsoft Office 365	2.07	.92	Disagree
Overleaf	2.93	.33	Agree
Authorea	3.78	.88	Agree
Dropbox Paper	2.18	.91	Disagree
Evernote	1.93	.89	Disagree
OneNote	2.67	.25	Agree
<b>Cumulative Mean</b>	<b>2.76</b>		

Decision Mean= 2.50

Source: Field Survey, 2024.

Table 1 present the analysis of online tools used by postgraduate students for academic writing and collaboration in North-west Nigeria. Among the tools with the highest mean usage, Google Docs stands out as the most popular (M=3.80). This indicates a strong preference for its collaborative features and ease of use. Authorea follows closely behind with a mean of 3.78, suggesting that students find it valuable for academic writing tasks. Overleaf, with a mean of 2.93, and OneNote, with a mean of 2.67, also rank among the top four tools, indicating their significant adoption among postgraduate students.

On the other hand, the tools with the lowest mean usage are Evernote (1.93) and Microsoft Office 365 (2.07). The relatively low adoption of Microsoft Office 365 is surprising, given its widespread use in many academic settings. This could potentially be due to factors such as cost, accessibility, or preference for cloud-based alternatives. The cumulative mean of 2.76 suggests a moderate overall adoption of online tools for academic writing and collaboration among postgraduate students in North-west Nigeria.



**Figure 1.** Usage of Online Tools for Academic Writing and Collaboration.

It could be observed that Google Docs and Authorea emerge as the frontrunners in document collaboration tools, with nearly identical usage rates of 19.6% and 19.5% respectively. Overleaf follows closely behind at 15.1%, particularly favoured by users working on LaTeX-based documents. OneNote holds the fourth position with 13.8% usage, while Dropbox Paper and Microsoft Office 365 show moderate adoption rates at 11.3% and 10.7% respectively. Among the tools analysed, Evernote demonstrates the lowest usage rate at 10%, rounding out the list of popular collaboration platforms.

**Research Question 2:** What are the types of reference management software frequently used by postgraduate students in north-west, Nigeria?

**Table 2.** Reference Management Software Frequently Used by Postgraduate Students.

Item	Mean	Standard Deviation	Decision
Mendeley	3.89	.21	Agree
Zotero	3.88	.19	Agree
EndNote	2.92	.34	Agree
RefWorks	2.01	.89	Disagree
Citavi	2.78	.38	Agree
Papers	2.33	.91	Disagree
JabRef	2.21	.76	Disagree
Cumulative Mean	2.86		

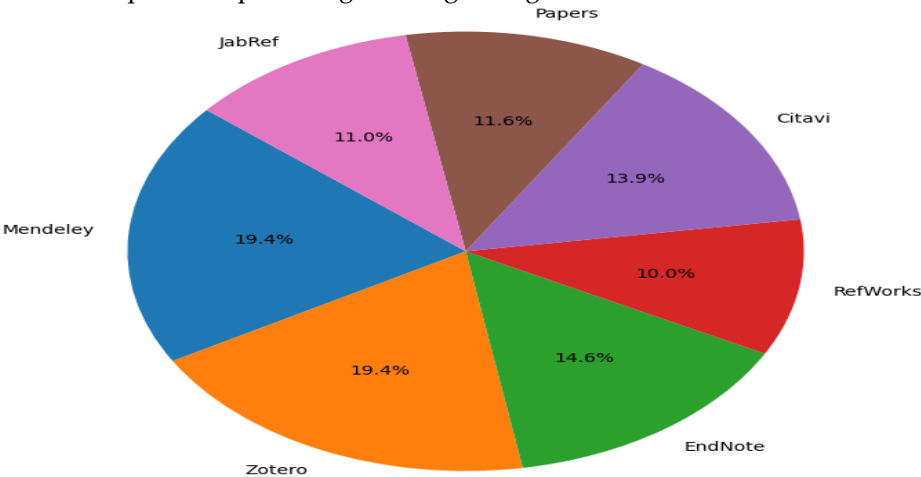
Decision Mean= 2.50

Source: Field Survey, 2024.

Table 2 presents the analysis of reference management software usage among postgraduate students in north-west Nigeria. The data revealed that Mendeley and Zotero emerge as the clear frontrunners, with mean scores of 3.89 and 3.88 respectively. These two software options appear to be the most popular choices, likely due to their user-friendly interfaces and robust features. EndNote follows as the third most frequently used software, with a mean score of 2.92. Citavi rounds out the top four with a mean of 2.78.

On the other end of the spectrum, RefWorks and JabRef are the least frequently used software, with mean scores of 2.01 and 2.21 respectively. Suggesting that these tools are not as popular or widely adopted by postgraduate students in the study area. The cumulative mean of 2.86 across all seven reference management software options indicates a general

trend towards agreement on the frequent use of these tools. This suggests that, overall, postgraduate students in north-west Nigeria are actively engaging with reference management software to support their academic work. The data is further presented using pie chart to explain the percentage of usage in figure 2.



**Figure 2.** Percentage Presentation of Reference Management Software Frequently Used by Postgraduate Students.

Mendeley and Zotero stand out as the most popular reference management tools, with each capturing about 19.4% of the total usage share. EndNote comes in third place, accounting for 14.6% of users, closely followed by Citavi at 13.9%. The remaining tools in the lineup, including Papers, JabRef, and RefWorks, have a smaller but still significant presence, with each tool being utilized by 10% to 11.6% of users. This distribution highlights the diverse landscape of reference management software, with users spread across various platforms to suit their specific needs and preferences.

3.1. Test of Hypothesis

**H<sub>0</sub>:** There is no significant difference in the online tools used by postgraduate students for academic writing and collaboration in North-west, Nigeria.

**Table 3.** Summary of T-test Analysis on Online Tools Used by Postgraduate Students for Academic Writing and Collaboration.

Variable	N	Mean	STD	M.D.	Df	t-cal	P
Online tools used by postgraduate students for academic writing and collaboration.	420	26.31	1.72	12.11	419	1.94	0.001

*P value = 0.001 < 0.05, t-Cal = 1.94> t-Crit 1.64 at df 419*

It is evidence from the table that the mean score for online tools usage is 26.31, with a standard deviation of 1.72. This indicates the average level of tool usage among the participants and the spread of the data. The calculated t-value (t-cal) is 1.94, which is higher than the critical t-value (t-crit) of 1.64 at 419 degrees of freedom. The p-value (0.001) is less than the significance level (0.05), indicating strong evidence against the null hypothesis. Thus, there is a significant difference in the online tools used by postgraduate students for academic

writing and collaboration in North-west, Nigeria. The significant difference could be attributed to various factors such as individual preferences, institutional recommendations, or varying levels of technological literacy among students.

**H<sub>0</sub>:** There is no significant difference in the types of reference management software frequently used among postgraduate students in north-west, Nigeria.

**Table 4.** Summary of T-test Analysis on Types of Reference Management Software Frequently Used among Postgraduate Students.

Variable	N	Mean	STD	M.D.	Df	t-cal	P
Types of reference management software frequently used among postgraduate students.	420	24.88	1.13	10.01	419	2.13	0.001

*P value = 0.001 < 0.05, t-cal = 2.13 > t-crit 1.64 at df 419*

It could be observed from the table that the calculated t-value (2.13) is greater than the critical t-value (1.64) at 419 degrees of freedom. The p-value of 0.001 is less than the conventional significance level of 0.05. This supports the rejection of the null hypothesis. This finding implies that postgraduate students in north-west Nigeria do not use reference management software uniformly. This variation could be as result of preferences, availability, or awareness of different software options among the postgraduate student population.

### 3.2. Discussion

The study revealed significant differences in the use of online tools for academic writing and collaboration among postgraduate students in north-west Nigeria. This concurs with the findings of Agada-Mba et al. (2024); Adeyemi et al. (2023); Chen (2022); Oladipo et al. (2022) studies which revealed significant variances across various platform types regarding perceived effectiveness, with Mendeley being found to be mostly effective compared to other platforms. Conversely, the study by Eze et al. (2021); Nwosu et al. (2020) found that there was a relatively uniform uptake of basic online collaboration tools among postgraduate students across different institutions. The study also investigated the online tools used for academic writing and collaboration. Google Docs was identified as the most popular tool, followed by Authorea, Overleaf, and OneNote. These tools were widely adopted for collaborative writing and academic tasks. Surprisingly, Microsoft Office 365 and Evernote showed lower adoption rates among the postgraduate students. This aligns with the previous studies of Olofsson et al. (2017); Genlott and Grönlund (2016); Fortunati and Vincent (2014); Taipale (2014) which revealed that Google Docs was widely preferred due to its ease of use and real-time collaboration features. Conversely, the finding of Erixon (2016) found that while most students were positive about digital writing, there was still a significant preference for traditional writing methods among some groups.

It was also revealed from this study that there is significant differences in the types of reference management software used among postgraduate students in north-west Nigeria. This finding supports the previous research revelations of Adeyemi et al. (2020); Mahawar et al. (2020); Bugyei et al. (2019); Amrutha et al. (2018) which established that EndNote and Mendeley were the most commonly used RMS, with varying levels of awareness and usage among faculty members. However, Osmani et al. (2016); Ram and Anbu (2014) findings revealed that there was a more uniform pattern of RMS usage among researchers, with less significant differences in the types of software used. Regarding reference management



software, Mendeley and Zotero were found to be the most frequently used tools among postgraduate students in north-west Nigeria. EndNote and Citavi also showed significant usage, while RefWorks and JabRef were the least frequently used software options. This aligns the research confirmations of Mahawar et al. (2021); Oshiname and Ajuwon (2020); Parabhoi et al. (2018) conducted a study on resident doctors in Nigeria and found that Mendeley was the most popular RMS, used by 55% of respondents, followed by EndNote at 40%. Conversely, Hendal (2019) on faculty members at Kuwait University found that EndNote was the most widely used RMS. This differs from the finding in north-west Nigeria, where EndNote was less popular than Mendeley and Zotero.

#### 4. CONCLUSION

The research demonstrates that Google Docs and Authorea are the most widely used online tools for academic writing and collaboration, followed by Overleaf and OneNote. This preference for cloud-based, collaborative platforms reflects a shift towards more interactive and accessible writing environments. Surprisingly, Microsoft Office 365 showed lower adoption rates, suggesting a potential gap between institutional offerings and student preferences. Regarding reference management software, Mendeley and Zotero emerged as the clear favourites among postgraduate students, with EndNote and Citavi also showing significant usage. This preference for open-source and user-friendly platforms indicates a trend towards more accessible and collaborative research tools. The study's findings contribute to the growing body of knowledge on digital literacy and technology adoption in higher education, particularly in the context of developing countries. This research provides valuable information for educational institutions, policymakers, and software developers to support postgraduate students' academic endeavours by identifying the most popular tools and software.

Furthermore, the observed variations in tool usage across different institutions and programs highlight the need for specialised approaches to digital literacy training and technology integration in postgraduate education. The findings can inform the development of more effective strategies for enhancing research productivity and collaboration among postgraduate students. Given the diversity in preferences for digital tools, universities should consider providing training sessions on widely adopted and less frequently used tools to promote inclusivity and broaden students' technological competencies. In addition, institutions could collaborate with developers to offer subsidised or free access to premium digital tools, which could mitigate the barriers posed by high costs.

#### *Limitations of the Study*

While this research provides valuable insights, certain limitations must be acknowledged. First, the study was limited to postgraduate students from four universities in North-West Nigeria, which may not represent the entire country. Expanding the scope to include more universities from other regions would enhance the generalizability of the findings. Second, relying on self-reported data through questionnaires may introduce bias, as participants might overestimate or underestimate their tool usage. Future research could employ a mixed-methods approach by combining surveys with interviews or observational studies to obtain more in-depth and reliable data. Lastly, this study primarily focused on the frequency of tool usage without extensively examining factors influencing these preferences, such as ease of use, technical support, or institutional policies. Future research should explore these factors to understand better what drives students' choices.

### ***Future Directions***

Future research could explore longitudinal studies that track changes in students' digital tool preferences over time to build on the current findings. This would provide a dynamic view of trends in digital literacy and technology adoption. Comparative studies between Nigerian universities and institutions in other developing countries could offer a broader perspective on regional differences and shared challenges. Further investigation into the impact of digital tool usage on academic performance and research productivity would also be beneficial, as it could help educational institutions design more effective digital literacy programs tailored to students' needs.

### ***Recommendations***

The management of postgraduate schools should prioritize implementing digital literacy programs tailored specifically for postgraduate students in North-West Nigeria. These programs should enhance students' proficiency in widely used and less frequently adopted academic writing tools. By equipping students with broader technological skills, such initiatives can significantly improve research productivity and overall academic output.

Additionally, university management should consider developing a standardized set of recommended online tools and reference management software for postgraduate students. This standardization would promote consistency in tool usage across different departments and research groups. A uniform approach would foster better collaboration between students and faculty members, streamline research efforts, and provide more targeted support and specialized training resources.

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### **REFERENCES**

- Abubakar, D., & Adetimirin, A. (2024). Influence of information literacy skills on postgraduate students' use of electronic resources in private university libraries in Nigeria. *Open Journal of Social Sciences*, 12(1), 1-13.
- Adebayo, O., & Okonkwo, E. (2023). Adoption of online academic writing tools among West African postgraduate students. *African Journal of Educational Technology*, 18(3), 245-260.
- Adeniran, P. & Onuoha, U. (2018) Influence of Information Literacy Skills on Postgraduate Students: Use of Electronic Resources in Private University Libraries in South-West, Nigeria. *Communications and Network*, 10, 164-179. <https://doi.org/10.4236/cn.2018.104014>
- Adeyemi, I. O., Owolabi, T. O., & Akinade, M. E. (2023). Use of collaborative tools for knowledge sharing among postgraduate students in selected universities in South-West, Nigeria. *Journal of Babcock University Digital Library*, 1(1), 118-136.
- Adeyemi, I. O., Sulaiman, K. A., & Akanbi, L. M. (2020). Awareness and usage of reference

- management software: Perspectives of faculty members of University of Ilorin Nigeria. *Insaniyat: Journal of Islam and Humanities*, 4(2), 115-126.
- Agada-Mba, M., Toluwalashe, M., Ujunwa, M. D., Oboakore, O. B., & Jemisenia, O. J. (2024). The Effectiveness of Online Collaboration Tools for Researchers in Poor Resource Settings: A Study of Researchers in Selected University Communities in Nigeria. *Ianna Journal of Interdisciplinary Studies*, 6(3), 90-104.
- Agélii Genlott, A., & Grönlund, Å. (2016). Closing the gaps: Improving literacy and mathematics by ICT-enhanced collaboration. *Computers & Education*, 99, 68-80.
- Akinola, A., Oso, O. O., Shorunke, O. A., & Oyadele, O. G. (2024). Preservation of theses and dissertations in the era of digitization: a case study of selected universities in Oyo state, Nigeria. *Digital Library Perspectives*, 40(4), 631-648. <https://doi.org/10.1108/DLP-03-2024-0053>
- Akpojotor, L. O. (2016). Awareness and usage of electronic information resources among postgraduate students of library and information science in southern Nigeria. *Library Philosophy and Practice*, 1408.
- Amrutha, R. V., Kumar, K. S., & Kabir, S. H. (2018). Use of reference management software among science research scholars in University of Kerala. *Indian Journal of Information Sources and Services*, 8(1), 54-57.
- Brunetti, F., Bonfanti, A., Chiarini, A., & Vannucci, V. (2023). Digitalization and academic research: knowing of and using digital services and software to develop scientific papers. *The TQM Journal*, 35(5), 1135-1155.
- Bugyei, K. A., Kavi, R. K., & Obeng-Korateng, G. (2019). Assessing the awareness and usage of Reference Management Software (RMS) among researchers of the Council for Scientific and Industrial Research (CSIR), Ghana. *Journal of Information and Knowledge Management*, 18(3), 1950031.
- Chen, L. (2022). Online collaboration tools and international students' sense of belonging in group work. *Journal of Teaching and Learning with Technology*, 12 (Special Issue), 105-120.
- Clarke, B., & Svanaes, S. (2012). One-to-one tablets in secondary schools: An evaluation study. *Tablets for Schools*.
- Eid, M. I. M., & Al-Jabri, I. M. (2023). Social media influence on students' knowledge sharing and learning: An empirical study. *Education Sciences*, 13(7), 745.
- Erixon, P. O. (2016). The struggle for the text © On teacher students' meetings and negotiations with different academic writing traditions on their way towards a passed paper. *Scandinavian Journal of Educational Research*, 60(4), 399-414.
- Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2021). The adoption of e-learning tools in Nigerian universities: A study of usage, benefits, and challenges. *Journal of Computing in Higher Education*, 33(1), 230-258.
- Fortunati, L., & Vincent, J. (2014). Sociological insights on the comparison of writing/reading on paper with writing/reading digitally. *Telematics and Informatics*, 31(1), 39-51.
- Gbesoevi, E. S., Lawal, R. O., Oyelami, M. L., & Gbenu, P. J. (2024). Educational planning and pedagogical digitalisation in Nigeria's educational system. *Wukari International Studies Journal*, 8(3), 206-213.
- Hendal, B. A. (2019). Kuwait University faculty's use of electronic resources during the COVID-19 pandemic. *Digital Library Perspectives*.
- Hoang, T. V. V., & Hoang, T. D. (2022). Online collaborative writing: A review of research and

- implementations in higher education. *Teaching English with Technology*, 22(1), 3-21.
- Irele, A. O. (2024). Digital Integration into the Nigerian Educational System: Challenges and Prospects. *Academic Research Special Issue*, 21, 1-5.
- Järvelä, S., Nguyen, H., & Hadwin, A. F. (2023). Human-AI collaboration in academic writing: Understanding patterns and strategies. *Higher Education*. <https://doi.org/10.1080/03075079.2024.2323593>
- Mahawar, K. L., Tanwar, P., & Hurum, U. (2021). Awareness and use of reference management software among the research scholars of School of Information Science and Technology in BBAU, Lucknow: A comparative study. *College Libraries*.
- Melles, A., & Unsworth, K. (2024). Reference management practices of students, researchers, and faculty: An examination of workflow and challenges. *Journal of Academic Librarianship*, 50(2), 102811.
- Miah, S. J., & Hasan, N. (2023). Social media use in higher education: Building a structural equation model. *Frontiers in Public Health*, 10, 1003007.
- Mijwil, M., Esen, A. T., & Al-Abachi, R. J. (2023). The impact of ChatGPT on higher education: A comprehensive review. *International Journal of Health Sciences*, 7(12), 114-122.
- Mohammadi, E., Thelwall, M., & Kousha, K. (2018). Social reference managers and their users: A survey of demographics and ideologies. *PLOS ONE*, 13(7), e0198033.
- Nsoesie, E., Oluwaseyi, A., Kamara, J., Ndlovu, S., & Mwangi, K. (2024). The landscape of academic writing tool usage in African higher education. *Journal of African Research in Education*, 29(1), 78-95.
- Nwosu, O. C., Igwe, K. N., & Nnadozie, C. O. (2020). Online collaboration tool usage among postgraduate students in Nigeria: A comparative analysis. *International Journal of Education and Development using Information and Communication Technology*, 16(2), 72-87.
- Okeji, C. C., & Eze, M. E. (2024). Influence of information literacy skills on postgraduate students' use of electronic resources in private university libraries in Nigeria. *Journal of Information Science Theory and Practice*, 12(1), 45-58.
- Okeji, C. C., Tralagba, E. C., & Obi, I. C. (2023). Usage of reference management software by postgraduate students at the University of Dar es Salaam, Tanzania. *University of Dar es Salaam Library Journal*, 16(2), 1-15.
- Okuonghae, E. O., & Ogiamen, T. E. (2016). Information literacy skills as correlates of library user satisfaction among undergraduates in Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 7(2), 46-55.
- Okuonghae, E. O., & Ogiamen, T. E. (2024). Information literacy skills and utilisation of electronic information resources by postgraduate students in Nigeria. *Library Philosophy and Practice*, e11903.
- Oladipo, A. O., Oyedele, V. I., & Ogunmola, A. A. (2022). The effect of educational technology tools on promoting student's collaborative writing. *Journal of Advance Research in Social Science and Humanities*, 8(8), 105-111.
- Olofsson, A. D., Lindberg, J. O., & Fransson, G. (2017). What do upper secondary school teachers want to know from research on the use of ICT and how does this inform a research design? *Education and Information Technologies*, 22(6), 2897-2914.
- Oshiname, R. M., & Ajuwon, G. A. (2020). Awareness and use of reference managers by resident doctors in Nigeria. *Journal of Health Information and Librarianship*, 5(1), 93-107.

- Osmani, M., Mza, R., Ahmad, B. A., & Arif, A. S. (2016). Reference management software (RMS) in an academic environment: A survey at a research university in Malaysia. *Journal of Theoretical and Applied Information Technology*, 88(1), 135-144.
- Parabhoi, L., Sahu, R. R., & Bhoi, N. (2018). Usefulness of citation management software for research scholars: A case study of Zotero and Mendeley. *International Journal of Library Information Network and Knowledge*, 3(2), 63-73.
- Pathak, A., & Johnson, S. (2018). Use of reference management software among postgraduate students in LIS schools of selected institutions in Delhi: A study. *DESIDOC Journal of Library & Information Technology*, 38(6), 378-383.
- Rahimi, M., & Fathi, J. (2022). Exploring the impact of online collaborative writing tools on EFL learners' writing development. *System*, 104, 102671.
- Ram, S., & Anbu, P. K. J. (2014). The use of bibliographic management software by Indian library and information science professionals. *Reference Services Review*, 42(3), 499-513.
- Taipale, S. (2014). The affordances of reading/writing on paper and digitally in Finland. *Telematics and Informatics*, 31(4), 532-542.
- Zhang, L., & Wu, Z. (2024). Enhancing postgraduate academic writing skills through course reform: An action research study. *Scientific Educational Research*, 5(2), 217-230.