

PERSPECTIVE PAPER

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African women in science: the research retreats perspective

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ABSTRACT

African women participate in science through various research activities in Higher Education Institutions (HEIs). The engagement of African women can continue to benefit the research community if they are given opportunities such as funding, scholarships and research retreats. However, African women still face challenges in HEIs including inadequate knowledge production through publications whereas research retreats have the ability to assist in the contribution of basic research or applied research. Therefore, in a bid to help African women in science, particularly in overcoming structural obstacles that prevent their transition from higher education to active research careers, the main objective of this paper was to explore African women in science, specifically to explore African women's perspective on their participation in science and the underutilized potential opportunities of research retreats. This perspective paper deployed a qualitative approach based on integrative literature review as a research methodology. Content analysis was used to avail themes. The findings revealed that participation of African women in science particularly research needs to consider the underutilized potential opportunities of research retreats like collaboration, exchange of knowledge and skills. The outcome of this paper has a practical implication for HEIs which are entrusted with research activities to avail research retreats in order to enhance the contribution of African women in science for the development of the continent.

KEYWORDS:

Science, research retreats, African women

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INTRODUCTION

Few African women, compared to men, participate in science through various research activities in Higher Education Institutions (HEIs). The engagement of African women in science can continue to benefit the research community if they are given opportunities such as funding, scholarships and research retreats. For example, African women have been engaging in research activities despite the disruptions of COVID-19 global pandemic as evident in the studies by Bordoloi et al.¹ and Mkwizu and Yassim². In those studies, some resilience strategies were identified as learning new technologies, engaging in collaboration activities like contributing to book chapters and participating in online conferences. However, previous studies have not explored the opportunities of research retreats for African women in science. Other scholars and in particular Khalifeh and Grant³ have mentioned about retreats and the focus is on writing retreats by defining the term as “*a form of academic development*”.

Another study published in 2024 by Bojovic et al.⁴ highlighted the benefits of writing retreats as the basis for fostering space for support, facilitate academic writing competence and new learning among Doctor of Philosophy (PhD) candidates. However, this paper focuses on “research retreats”, referred to as a place where academicians or researchers convene whether virtually or physically in a resort or any convenient place for purposes of collaborating in research activities involving writing papers or books, reflections, consultancy reports, exchanging knowledge and publications.

Similarly, various scholars (Harvey and Vlachopoulos⁵; Weibe et al.,⁶) have provided different names for retreats and these can be academic retreats, refreshing retreats, writing retreats, and reflection retreats. Weibe et al.⁶ commented that some of the activities during retreats involve open access and academic publishing, writing policy briefs, writing methodology, writing for grants applications, knowledge mobilization plans, data management plans, collaboration with community and international partners. Despite the mention of various activities during retreats, this paper acknowledges the systemic barriers African women

face in academia, such as gender bias and institutional challenges thus underscores the significance of research retreats. Therefore, given the underrepresentation of African women being few in scientific research, but also how existing aspects of research retreats are insufficiently understood or utilized then this paper focused on research retreats which have the ability to assist African women to contribute in both basic and applied research. In a bid to help African women in science, particularly in overcoming structural obstacles that prevent their movement from higher education to active research careers, this paper aimed to explore African women in science from the research retreat perspective. The specific objective was to explore African women participation in science and underutilized potential opportunities of research retreats.

This perspective paper also promotes research retreats not simply as an ordinary routine, but as an avenue for skill exchange, cooperation, writing, and academic healing for Africa women in science. Thus, using a qualitative approach based on integrative literature review, this paper sources data from several organizations with other relevant academic studies to propose the concept of research retreat as an intellectual sanctuary. This intellectual sanctuary not only sustains research but also nurtures the researchers.

METHODS

This perspective paper employed a qualitative approach based on the integrative literature review as a research methodology. The selection of the integrative literature review is relevant because there is no primary data collection involved hence sourcing from reviewed articles is deemed sufficient to address the objective. Likewise, ethical approval was not needed because this paper did not collect primary data but relied on secondary sources. Using a literature review as a research methodology has been documented in the study by Snyder⁷ and further states that an integrative literature review is also an approach in conducting a literature review. In addition, an integrative literature review has a typical purpose of synthesizing and having a research question while the search strategy is not

systematic and can use research articles, books or any other published texts (Snyder)⁷. This paper adopted the five steps of integrative literature review guided by Snyder⁷, Torraco⁸ and Mkwizu⁹. Additionally, the use of integrative literature review for this paper was due to its ability to include other sources and thus not limiting to journal articles only as the case for systematic literature reviews. These five steps of integrative literature review by Torraco⁸ are: identifying the appropriate topic, justifying literature review methodology, searching literature, analyzing and criticizing the literature, and synthesizing results.

For the first step, the selected topic is exploring African women in science from the research retreats perspective. The selection of the integrative literature review is also to address the posed question “*What is the status of African women participation in science? and What are the underutilized potential opportunities of research retreats for African women participating in science?*”. The second step involves justifying the literature review method whereby this paper selected the integrative literature review for synthesis purposes of the reviewed literature that is relevant to address this paper’s question so as to achieve the exploration of African women in Science and research retreats in higher education. The third step is searching for

literature and this paper utilized the Education Resources Information Center (ERIC) database to select relevant journal articles which were chosen because of the peer review process.

The search words that were deemed sufficient for the interest of this paper were “African women participation in Science AND research retreats” and “African women participation in Science AND research retreats AND higher education”. For formal quality appraisal, only those journal articles within the search word interest relevant to this paper’s topic were included for synthesis and those not of interest were excluded. However, the relevant journal articles from ERIC were only 2 and therefore, this paper ensured there was no bias by including other sources of information which are reports and journal articles not from ERIC database. The inclusion of other sources is in line with the integrative literature review which considers reports, conference papers and any documentary evidence to support the topic of interest under investigation and thus enhance the rigor and replicability. The fourth step analyzed the selected journal articles and reports using content analysis to avail themes. Finally, the fifth step consists of the synthesis of the results. Table 1 represents the selected literature for the period of 2016 to 2025.

Table 1. African Women in Science and research retreat in higher education

| Source | Title | Findings |
|--|--|--|
| Adewale (2025) | Exploring ChatGPT usage amongst female academics and researchers in the academia | Female academics and researchers many used ChatGPT to support their research and other scholarly works, others identified the fear of involving in unethical acts that can tarnish their academic integrity as a threat to its usage. Nonetheless, the tool has contributed to their productivity. |
| Tsephe and Potgieter (2022) | African female doctoral graduates account for success in their doctoral journeys | Findings show that trust in God made the doctoral journey possible including conducting research in South Africa. The study suggested that institutional support, peer support and academic support play a role in their achievement. |
| DANIDA Fellowship Centre (2024) | The more women in research manifesto | Some of the views as key takeaways from 50 African women researchers from 12 countries (Burundi, Rwanda, Burkina Faso, Kenya, Uganda, Tanzania, South Africa, Ethiopia, Somaliland, Egypt, South Sudan and Ghana) include the need for funding in research, and also the intersectional differences influence women’s success in research. |
| African Development Bank Group (2016) | Participation of women and girls in science crucial for Africa’s development | In African countries show that Cape Verde 52% of researchers are women, 47% in Tunisia, 40% in South Africa and Uganda. Guinea is |

| | | |
|---|--|--|
| Hamdy et al. (2017) | Towards women participation in scientific research in Africa. | on the other extreme with only 6% women researchers, followed by Ethiopia with 7.6%, Mali with 10.6% and Côte d'Ivoire with 16.5%. Women still face considerable barriers as they transit from higher education to careers in research. Each step up the ladder of the scientific research system sees a drop-in women participation until, at the highest echelons of scientific research and decision making further buttressing the earlier findings by some authors. |
| AUDA-NEPAD African Union Development Agency (2022) | Heightening the Participation of African Women in Science, Technology, Engineering, And Mathematics Career Paths | Through establishing and implementing gender-friendly policy frameworks, incorporating gender equity into STEM education, deploying role models, and implementing learning resources. |
| SEI (2021) | Women in STEM: Promoting women's participation in science in Africa. | Enhance the capacity of female researchers through funded trainings. |
| Dube et al. (2017) | Innovation in conducting writing retreats for academic staff in higher education | Writing retreats to enable and leverage collaboration, encouragement of positive collegial relationships between the mentors and the participants, building leadership capacity, mixture of diverse intellectual perspectives to foster vibrant intellectual exchange, support for new writers and junior scholars, collective forum and one-on-one interactions, and follow-up. |
| Benvenuti (2017) | Pedagogy of peers: Cultivating writing retreats as communities of academic writing practice | Writing retreats can support academic writing development, and deliver benefits to academics, from novice to established, that include enhanced research publication output, strengthened academic identity as writers and a motivated community of practice extending beyond the writing retreats. |

Source: Compilation by Author (2025)

FINDINGS AND DISCUSSION

Generally, the findings revealed that participation of African women in science particularly research needs to consider the opportunities of research retreats like collaboration as well as exchanging knowledge and skills. Further perspectives in support of this paper's finding is elaborated in the selected reviewed literature as follows:

The status regarding participation of African women in science as evident in African Development Bank Group¹⁰ is considered not evenly distributed within African countries. For instance, the statistics revealed by African Development Bank Group¹⁰ recorded only 6% and 10.6% women researchers in Guinea and Mali, respectively, compared to 52% from Cape Verde. Some of the reasons for this variation can be derived from a study by Hamdy et al.¹¹ which mentioned that there are barriers for African women in science when transiting from higher education to careers in research but also "each step up the ladder of the scientific research system sees a drop-in women participation until, at the

highest echelons of scientific research and decision making further buttressing the earlier findings by some authors". This implies that there is some level of participation by African women in science, but there is a variation across countries. In view of the varying percentages in women researchers within the continent, the African Development Bank Group¹⁰ emphasized on investing in skills, innovation plus science and technology.

African women also experience the doctoral journey and Tsephe and Potgieter¹² have discovered that trust in God made South African female doctoral graduates complete their studies including conducting research activities. Furthermore, Tsephe and Potgieter¹² suggested that support from institutions, peers and academics plays a role in the female doctoral graduates' achievement. Interestingly, the study by Adewale¹² added that many female academics and researchers used ChatGPT to support their research. However, the study by Adewale¹³ and Tsephe and Potgieter¹² have not mentioned about research retreats

hence, this paper's perspective is to recommend that research retreats can assist more women to engage in research activities. Additionally, this paper recommends that even African women in science can consider and emulate the female doctoral graduates from South Africa by putting their trust in God during the doctoral research journey.

Despite the low participation status of African women in science, the existing literature by AUDA-NEPAD African Union Development Agency¹⁴ and Stockholm Environment Institute (SEI)¹⁵ have shown that there are several ways to heighten and promote participation of African women in science. Among the ways in heightening and promoting women's participation in science for Africa is through "establishing and implementing gender-friendly policy frameworks", "incorporating gender equity into STEM education", "deploying role models", "implement learning resources", and "funded trainings" (AUDA-NEPAD African Union Development Agency¹⁴; SEI¹⁵). This paper also recommends that one of the ways to improve participation of African women in science is through research retreats where the female researchers in the continent can enjoy the many kinds of research retreats such as writing retreats, reflection retreats, refreshing retreats or academic retreats as indicated in Harvey and Vlachopoulos⁵ and Weibe et al.⁶ for the sole purpose of enhancing the research environment and boost the research output through publications.

On the other hand, the DANIDA Fellowship Centre¹⁶ unveiled a manifesto that emanates its discussions and literature review from 50 African women in science and other fields. Furthermore, the manifesto highlights the need for intersectional differences to make research successful for African women. These 50 African women researchers that are from Burkina Faso, Burundi, Egypt, Ethiopia, Ghana, Kenya, Rwanda, Somaliland, South Africa, South Sudan, Tanzania, and Uganda also recommended for consideration of minimum of 30% of all government research funds to be allocated to women-led research projects as well as removal of barriers to entry for women in Science, Technology, Engineering and Mathematics (STEM) through investing in smart learning centres. This implies that Africa women participate in science and research activities

but funding and investing still needs to be considered in order to have successful African women in research.

The manifesto for More Women in Research (MWIR) as indicated in DANIDA Fellowship Centre¹⁶ also recommended for higher learning institutions as well as research institutions to introduce research retreats for women so that it provides time and space to concentrate on research activities without the distractions of domestic responsibilities. This suggests that the recommendation for research retreats is crucial but also support the definition of research retreat by Khalifeh and Grant³ as a form of academic development. Therefore, research retreats can be encouraged to African women in science but also other fields in order to develop them in research activities as well as academically. Dube et al.¹⁷ provided some of the call for writing retreats from a study conducted in South Africa for academic staff in higher education which revealed that the activities during the retreats can range from enabling and leveraging "*collaboration*", encouraging "*positive collegial relationships between the mentors and the participants*", "*building leadership capacity*", "*fostering vibrant intellectual exchanges*", "*supporting new writers and junior scholars*", "*interacting on collective forum and one-on-one session*" as well as "*follow-ups*". Benvenuti¹⁸ included the benefits of writing retreats can be "*enhancing publication output*" and "*strengthened academic identity as writers*". This implies that the participants in these writing retreats can enjoy and treat the benefits as opportunities of research retreats, which are collaboration, exchange knowledge and skills, support system for both new writers and junior scholars.

On the other hand, SEI¹⁵ further mentioned that there are few women in Africa who occupy decision-making positions in academic as well as in research institutions. Therefore, this status of few women in academic and research institutions implies the specific challenge in putting the research agenda as a priority thus deterring the involvement of more African women in science-based retreat. Despite the challenges mentioned, in summary, there are many opportunities that can be harnessed from research retreats such as writing and planning as indicated in Table 2 which is placed just after Table 1 at the end of this paper.

Table 2. Summary of opportunities of research retreats for African Women in Science

| Opportunities |
|--|
| Collaboration with retreat leaders, participants, community and international partners Positive collegial relationships between the mentors and the participants |
| Exchange of knowledge and skills Leadership capacity |
| Intellectual exchange Support for new writers and junior scholars |
| Attend both collective forum and one-on-one interactions Follow ups |
| Support in academic writing development Enhance research publication output Strengthens academic identity as writers Provision of time and space to focus on research |

Source: Compilation by Author (2025)

CONCLUSION AND IMPLICATIONS FOR FUTURE RESEARCH DIRECTION

This perspective paper can conclude that there are African women in science and that, their participation in science particularly in STEM is still viewed as low due to several barriers such as funding. Furthermore, the findings reveal that African women's participation in science should consider the underutilized potential opportunities of research retreats like collaboration, exchange of knowledge and skills. The practical implication is for education authorities and HEIs which are entrusted with research activities including policies to avail or offer research retreats as a way of increasing knowledge production as well as enhancing the research contribution of African women in science for the development of the continent. The outcome of this perspective paper avails recommendations which are:

i) Improve participation of African women in science through policy reforms in HEIs to include research retreats where the female researchers in the continent

can enjoy the opportunities of research retreats such as writing skills, data management plans, knowledge sharing, and building leader capacity. These opportunities can enhance the research environment and boost knowledge production through publications of research findings from African women researchers in science that can be utilized by the society, research community and policy makers.

ii) Interventions such as mentorship programs can involve role models to mentor African women in research activities and collaboration both locally and internationally for purposes of enhancing their transition from higher education to active research careers.

iii) The authorities in higher education institutions to tackle the issues of funds and investment in science education through funding programs that put emphasis on internal sources rather than dependency on external sources in order to have successful African women participation in research.

iv) There is a need to provide structural support to African women in science by ensuring that the research retreats translate into tangible research outputs.

Study limitations for this perspective paper exists and these are the use of integrative literature review and content analysis. There were few studies thus the narrow scope of literature particularly journal articles connecting the concepts of African women in science and research retreats hence makes this an interesting topic and niche subject for further research. Another direction for future studies is the application of other methods like quantitative approach.

CONFLICT OF INTEREST

None declared

REFERENCES

1. Bordoloi R, Junio-Sabio C, Mkwizu KH. An Exploration of Female Academics' Resiliency During the COVID-19 Pandemic: With Reference to India, the Philippines and Tanzania. In: Bissessar, C. (eds) Female Academics' Resilience during the

- COVID-19 Pandemic. 2023; 71-97. Springer, Cham. Switzerland.
2. Mkwizu KH, Yassim K. Resilience and sustainability in African higher education: A post-Covid collaborative autoethnographic reflection. *Issues in Educational Research*. 2024;34(4):1451-1468.
 3. Khalifeh SS, Grant BM. A thousand tiny feminisms': An interview about writing retreats for academic women and feminist praxis in academia. *Journal of Praxis in Higher Education*. 2022;4(1): 100–115.
 4. Bojovic M, Frost E, Grace A, Simon H. Read, write, retreat: A collaborative reflection on shared writing retreat experiences among PhD candidates. *Journal of Geography in Higher Education*. 2024; 48(5): 839-863.
 5. Harvey M, Vlachopoulos P. What a difference a day makes: reflection retreats as academic development in higher education. *Journal of Further and Higher Education*. 2020; 44(3): 378–392.
 6. Weibe NG, Pratt, HL, Noël N. Writing retreats: Creating a community of practice for Academic across discipline. *Journal of Research Administration*. 2023;54(1): 37-65.
 7. Snyder H. Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*. 2019; 104: 333-339.
 8. Torraco RJ. Writing integrative literature reviews: Guidelines and Examples. *Human Resource Development Review*. 2005;4(3):356-367.
 9. Mkwizu KH. Tourism in Africa: opportunities and challenges perspectives from Eastern and Southern Africa. *ASFI Research Journal*. 2025; 2(1): e12048.
 10. African Development Bank Group. Participation of women and girls in science crucial for Africa's development. 2016. <https://www.afdb.org/en/news-and-events/participation-of-women-and-girls-in-science-crucial-for-africas-development-15377>
 11. Hamdy A, Kyari M, Johnson M, Kelef R, Fahmi A, Peccia, T. Towards women participation in scientific research in Africa. African Union Scientific Technical Research Commission. 2017. <http://www.austrc.org/docs/womenSTI/Women%20in%20Science.pdf>
 12. Tsephe L, Potgieter C. African doctoral graduates account for success in their doctoral journeys. *HTS Theological Studies*. 2022; 78(1): a7911.
 13. Adewale, S. Exploring ChatGPT usage amongst female academics and researchers in the academia. *The international Journal of Information and Learning Technology*. 2025;42(1): 49-66.
 14. AUDA-NEPAD African Union Development Agency. Heightening the Participation of African Women in Science, Technology, Engineering, And Mathematics Career Paths. 2022. <https://www.nepad.org/blog/heightening-participation-of-african-women-science-technology-engineering-and-mathematics>
 15. Stockholm Environment Institute (SEI). Women in STEM: Promoting women's participation in science in Africa. 2021. <https://www.sei.org/features/women-in-stem-promoting-womens-participation-in-science-in-africa/>
 16. DANIDA Fellowship Centres. More Women in research. 2024. <https://dfcentre.com/wp-content/uploads/2024/10/Final-MWIR-28th-Online-29th.pdf>
 17. Dube B, Maphosa, SB, Merson C, Miner-Romanoff K. Innovation in conducting writing retreats for academic staff in higher education. *South African Journal of Higher Education*. 2017; 31(2): 4-21.
 18. Benvenuti, S. Pedagogy of peers: Cultivating writing retreats as communities of academic writing practice. *South African Journal of Higher Education*. 2017;31(2): 89-107.