



Exploring Collaborative Experiences, National Research Fund and Community of Research Groups:

Insights from Public Universities in Nigeria

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Abstract

This study explores the collaborative experiences of Ekiti State public university researchers within the National Research Fund (NRF)-based Community of Research Groups (CoRGs) during the 2024 Grant cycle. A purposive sampling technique selected two public universities in Ekiti state, Nigeria. These universities set up research groups to reinforce winning NRF grants for the 2024 cycle year. Furthermore, the research groups expanded into a Community of Research Group (CoRG), with eight of the initial sixteen groups participating. The choice of qualitative methods is grounded in the need to capture the depth and complexity of researchers' experiences, which are best understood through social interaction and collaborative-based narrative accounts. On this premise, Vygotsky's (1978) ideology on social interaction forms the basis for collecting data for this study. Data were collected through Focus Group discussions comprising sixteen CoRG groups based on a qualitative research design. The research was categorised into Science, Humanities, and Cross-cutting disciplines. The data were analysed using thematic analysis. The findings reveal the critical role of collaboration dynamics, institutional support, and interpersonal social interactive communication in the success of applying for NRF groups. Additionally, the study highlights the contributions of these collaborations to advancing Sustainable Development Goal 4 (SDG 4) on quality higher education in Education, Science and Technology. The implications for enhancing future NRF collaborations are discussed, with the authors' recommendations for developing and sustaining the Community of Research Groups in the Nigerian university system while aligning research objectives with global educational goals.

Keywords

Collaborative Experiences, National Research Fund, Community of Researchers Groups, Public Universities

INTRODUCTION

Community of Research Groups (CoRGs) is a critical driver of academic innovation and development, especially within the framework of the National Research Fund. The National Research Fund (NRF) Grant was introduced by the Tertiary Education Trust Fund (TETFund) to galvanise cutting-edge research in Nigerian Higher Education Institutions (HEIs). Research needs and demands from researchers in universities, colleges of education, and polytechnics have recently increased, particularly in funding. For the 2023–2024 cycle, the NRF allocated over N5.1 billion to fund 185 research projects across various thematic areas. These areas include Science, Engineering, Technology, and Innovation (SETI), Humanities and Social Sciences (HSS), and Cross-Cutting themes, which encourage interdisciplinary approaches to research (TetFund, 2024). However, the competition for research funding through the NRF is exceedingly high and only well-packaged researched proposals finally succeed. In 2023, the University of Jos was awarded over ₦300 million for nine research projects. This award significantly increased from previous years, reflecting the university's enhanced focus on research and development (University of Jos, 2023). Similarly, the Osun State University (UNIOSUN) emerged as one of the leading institutions in 2023, winning six NRF grants totalling over ₦174 million. This considerably improved from 2022, when the university secured only two grants (Adebayo, 2023).

Setting up a Community of Research Groups (CoRGs) is expected to translate academic efforts into eventual fruition. In the university research paradigm, the RGs span a wide range from Independent Researchers (IRs) to research groups set up by visionary universities to benefit from winning research grants, including the NRF and IBR. Research groups excel in integrating diverse disciplinary perspectives, which is crucial for tackling complex research problems. As Hall et al. (2018) noted, interdisciplinary collaborations often generate novel ideas and innovative solutions that are more likely to attract funding agencies. These agencies prioritise projects that promise broad societal impact, which is more achievable when multiple disciplines converge to address a common challenge are essential for advancing scientific knowledge and promoting Sustainable Development Goals (SDGs), particularly SDG 4, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Individual researchers in collaborative groups benefit from exposure to diverse methodologies and perspectives, which enhances their skill set and broadens their academic horizons. This cross-disciplinary learning is essential for the development of innovative solutions to complex research problems (Johnson et al., 2022; Wang & Lee, 2023).

The unique expertise and experience that individual researchers bring to collaborative groups are critical to the success of research initiatives. Researchers' previous experiences and ability to work effectively within a team context often determine the success of collaborative projects (Smith & Brown, 2023; Ahmed, 2024). However, from the authors' personal experience, the experiences of researchers within these collaborative groups can be complex, influenced by factors such as group dynamics, resource availability, and institutional support. A deeper understanding of these experiences is essential for optimising the effectiveness of such collaborations and ensuring that researchers can fully leverage these opportunities to contribute to institutional and global educational objectives.

While the benefits of collaborative research are well-documented, the authors believe there needs to be a significant gap in understanding the specific experiences of researchers within these collaborative settings, particularly in the context of NRF groups and their contribution to SDG 4. Existing literature has predominantly focused on the outcomes of these collaborations, such as research impact and publication metrics, with less attention to the lived experiences of the researchers involved. For instance, participation in NRF groups is a professional obligation and a potential pathway to enhancing quality education and contributing to global sustainable research and development efforts. However, with a nuanced understanding of their positive and negative experiences, the full potential of these collaborations, particularly in advancing SDG 4, may be realised. This study aims to address this gap by exploring the experiences of the current NRF applicants (2024 Grant Cycle) cum researchers who participated in Community of Research Groups in the two universities purposively selected for this study. By examining these experiences, the research seeks to identify the challenges and opportunities that arise within these collaborations, offering insights that can inform policies and practices to support more effective and fulfilling research environments, ultimately contributing to the achievement of SDG 4.

Thus, this discourse was precipitated by the need to gather data through CoRG members' points of view to address the following research questions:

1. What are the experiences of university-based researchers in the institution-based NRF groups?
2. What challenges do researchers encounter in these university-based research collaborations?
3. How do researchers perceive the impact of NRF group participation on their professional development and contribution to SDG 4?

The significance of the research questions and the study's implementation delves into the ability to explore the nature of researchers' experiences, identify challenges and opportunities and provide insights into the Community of Research Group (CoRG) experiences towards winning the National Research Fund (NRF) grants in Nigerian public universities.

LITERATURE REVIEW

Collaborative research is increasingly recognised as a critical driver of innovation and academic excellence in higher education. Recent studies highlight the importance of collaborative research frameworks in enhancing institutional research output and fostering interdisciplinary approaches (Hansson & Mønsted, 2020). These frameworks, particularly those supported by the National Research Fund (NRF), provide essential platforms for researchers to engage in cross-disciplinary projects that address complex global challenges, including the Sustainable Development Goals (SDGs) (Rowell et al., 2017; Beckman et al., 2018).

The benefits of collaboration are manifold, including access to diverse expertise, shared resources, and increased publication opportunities. However, the success of these collaborations depends heavily on the dynamics within research groups, the institutional support provided, and the alignment of research goals with broader institutional and global agendas (Jones et al., 2020). For higher institutions focused on advancing quality education (SDG 4), participation in such collaborative frameworks can significantly enhance their contribution to global educational standards.

Despite the advantages, collaborative research has its challenges. Researchers often face obstacles such as communication barriers, cultural differences, and conflicts over intellectual property (Adams et al., 2019). Also, Faloye and Obateru (2021) links significant collaborative success to digital competence in communication. Moreover, the distribution of resources and recognition can be uneven, leading to potential tensions within collaborative groups. These challenges can hinder the effectiveness of research projects and, in some cases, may even lead to the dissolution of collaborations (Briggs & Reid, 2018).

These challenges are particularly pertinent in the context of the university paradigm regarding creating NRF collaborative groups. The complexity of coordinating across multiple institutions and disciplines can exacerbate these issues, making it essential to understand the specific experiences of researchers within these groups. Understanding these experiences is crucial for developing strategies to mitigate challenges and enhance the overall effectiveness of collaborative research (Simpson & Bourdeau, 2021).

Participation in collaborative research groups significantly impacts researchers' professional development. Studies have shown that researchers involved in collaborative projects tend to develop a broader skill set, including enhanced communication, leadership, and project management skills (Wagner et al., 2020). Additionally, collaborative research offers opportunities for early-career researchers to build networks and gain visibility in their fields, which can be crucial for their academic advancement (Chiu et al., 2021). In the view of Nguyen et al. (2022), researchers can engage with cutting-edge educational research, develop innovative teaching methodologies, and contribute to the global discourse on education quality. Expressly, a more specific definition related to research groups is provided by Stokols et al. (2008), who defined a community of research groups as a collaborative network that fosters interdisciplinary and transdisciplinary research, allowing for the integration of diverse perspectives and methodologies to address complex scientific and social problems. In a broader sense, Fracchiolla et al. (2020) reinforces the “strength of community” among members of the CoRG.

The role of collaborative research in advancing the SDGs, particularly SDG 4 on quality education, has gained considerable attention in recent years. Research indicates that collaborations across institutions and disciplines are essential for addressing the multifaceted challenges of achieving SDG 4 (Friedman & Musemwa, 2020). By bringing together diverse expertise, collaborative research can lead to innovative educational strategies, policies, and practices that improve educational outcomes globally (Khan et al., 2021).

NRF collaborative groups are well-positioned to contribute to these efforts. These groups often focus on research areas directly linked to the SDGs, such as educational access, equity, and quality (Smith & Schramm, 2019). Participating in these groups for most Nigerian public universities offers a strategic opportunity to contribute to global educational goals while enhancing their research capacity and institutional research reputation globally.

However, Collaborative research groups face various challenges that can hinder their effectiveness, particularly in academic research. Between 2022 and 2024, scholars identified several key challenges, including communication barriers, disparities in research goals, and difficulties in managing interdisciplinary teams. These challenges often arise due to differences in disciplinary cultures, leading to misunderstandings and conflicting expectations among team members (Briones et al., 2022; Bunders et al., 2022). Furthermore, the complexity of coordinating across different institutions and navigating bureaucratic procedures can impede progress, particularly in large-scale, multi-institutional collaborations (Frontiers, 2023). Addressing these challenges requires robust governance structures, clear communication strategies, and the development of mutual understanding and trust among members of the CoRGs to ensure successful outcomes in winning NRF grants.

Garcia et al. (2020) view the success of collaborative research projects as being heavily influenced by the level of institutional support provided to researchers. Studies have shown that institutions that actively support their researchers through funding, administrative assistance, and professional development opportunities tend to have more successful and sustainable collaborations (Miller et al., 2018). Institutional support is particularly critical in the context of NRF collaborative groups, where the complexity of projects often requires substantial logistical and administrative backing (Garcia et al., 2020). The authors, being experienced researchers in charge of research and development in their respective universities, opine the need for university authorities to support the setting up and sustained motivation of the research groups within the CoRG. Osei-Kofi Lott (2021) further asserts that higher institutions can ensure their researchers are well-equipped to contribute to the institution's goals and the broader agenda of advancing quality education (SDG 4).

We might have missed some relevant literature in our attempt to search for similar studies on the subject matter. Nevertheless, this research presented an opportunity to decipher and add to the literature on the Community of Research Group accruing from the experience researchers garner from collaborative social interaction in the university context. Therefore, this study deems it necessary to create a bridge to close the gap in studies relating to research experiences in communities of research groups within the NRF grant paradigm. It is hoped that there will be a significant paradigm shift from just observing the research capabilities and abilities of researchers to a more probing psycho-social survey to improve subsequent attempts at winning the NRF grants for their respective universities.

THEORETICAL FOUNDATIONS

Vygotsky's (1978) sociocultural theory serves as a vital underpinning for this study, emphasizing the role of social interaction in the collaborative research processes within NRF groups. The theory's core concept, the Zone of Proximal Development (ZPD), is particularly relevant as it illustrates how less experienced researchers in these groups expand their capabilities through mentorship and collaboration with more knowledgeable peers. This collaborative dynamic fosters the co-construction of knowledge, where researchers collectively engage in problem-solving, share diverse perspectives, and challenge one another's ideas, leading to significant intellectual and professional growth.

Furthermore, Vygotsky's emphasis on language and communication as tools for cognitive development aligns with the study's findings on the importance of effective communication within the Community of Researchers Groups. Through dialogue and exchange, members of these groups negotiate research directions and contribute to developing

interdisciplinary approaches, enhancing the overall quality of research output. The sociocultural theory, therefore, provides a robust framework for understanding how collaborative interactions within the sixteen NRF groups advance individual researcher development and contribute to broader educational outcomes and the achievement of Sustainable Development Goal 4 (SDG 4).

During the interactive discourse in the groups, the members keenly pinpointed vital information that needed to be included in the preparation of the Concept Notes. In addition, digital literacy skills were effectively deployed collectively despite evident soft skills challenges that manifested during the concluding session for uploading the completed concept notes.

METHODOLOGY

This study adopted a qualitative research design to explore and interpret the experiences of researchers in the Community of Research Group (CoRG). The members of the CoRG were involved in preparing National Research Fund (NRF) Concept Notes, with a particular focus on how these experiences contribute to the advancement of Sustainable Development Goal 4 (SDG 4) on quality higher education. The qualitative approach is well-suited for capturing the depth and richness of the participants' experiences, enabling a nuanced understanding of the challenges and opportunities they encounter within these collaborative settings.

Participant Demographics and Study Context

The CoRG members purposively selected for this study consisted of dedicated scholars who participated in hands-on training to win university grants. The Centres for Research and Development of the two selected universities had earlier organised the training using designated groups comprising academics in the Humanities, Science and Cross Cutting categories. The CoRGs, consisting of ten groups of six ($n = 6$) budding and experienced academics, each with at least eight years of teaching and research experience, cuts across two public universities in Ekiti State, Southwest Nigeria.

The CoRG members participated in critical interactive discussions via WhatsApp video and audio calls that occurred four times, each lasting over 1 hour and thirty minutes. The discussions focused on their general experience in NRF groups, collaboration dynamics, communication and coordination strategies, institutional support, professional development and impact on quality higher education through the NRF grant. However, the social interactive discussions via WhatsApp were constrained and occasionally limited to eight groups due to academic and personal exigencies at work and home. Nevertheless, six members in eight groups regularly attended and participated in online activities via WhatsApp.

Instrumentation

This study's data collection was primarily conducted through focus group discussions facilitated by video and audio calls via WhatsApp. The choice of instrumentation was guided by the study's qualitative research design, aiming to explore the collaborative experiences towards preparing National Research Fund (NRF) Concept Notes within the CoRGs groups in public universities in Ekiti State, Nigeria.

The focus group discussions were structured to capture in-depth insights into the dynamics of collaboration among NRF group members. Eight of the ten initial groups were regular focus groups for the study. Regarding the research questions, every CoRG group member contributed to drafting the questions. At the same time, the corresponding authors were responsible for arranging the questions, which were later shared with other CoRG members. The discussions explored vital themes such as group dynamics, communication and coordination, institutional support, professional development, and the impact on educational outcomes. The responses gathered through this platform were then subjected to thematic analysis to identify recurring patterns and themes. It was vital to allow the CoRG members access to the questions and transcribed text for reliability, validity, transparency and exactitude in the study reports.

Data Analysis

This study adopted an inductive and thematic analysis to understand CoRGs' disposition on the collaborative experiences in research groups created to prepare and win NRF grants for public universities in Ekiti state, Nigeria. The data analysis for this study was conducted using NVivo 14, being particularly effective for analysing qualitative data across different research teams and geographical locations and a qualitative data analysis software that facilitates the organisation, coding, and inductive thematic analysis of qualitative data. The analysis, led by the corresponding authors, embedded Vygotsky's (1978) theoretical framework on social interactionism through collaborative efforts within a social group.

The focus group discussions, collected through WhatsApp, were transcribed verbatim. These transcriptions formed the primary dataset for the study. The data was then imported into NVivo, and the corresponding authors thoroughly scrutinised and coded the responses according to the three categories of focus groups: Science, Humanities, and Cross-cutting disciplines. Each group's responses were linked to specific research questions, allowing for a structured thematic analysis.

The coding process began with an initial round of open coding, where key phrases, ideas, and concepts related to the research questions were identified and assigned codes. This process was iterative, involving multiple readings of the transcripts to ensure all relevant data was captured. The codes were then grouped into categories that reflected broader themes emerging from the data. Furthermore, the CoRGs were provided anonymity through codes such as CoRG1,

CoRG2, CoRG3, CoRG4, CoRG5, CoRG6, CoRG7 and CoRG8. Table 1 below shows the analysis of the CoRGs code labels and categories of research:

Table 1 Analysis of CoRGs' Codes for Groups, Categories for NRF Grant Projects and Thematic Areas

Codes for Groups	Categories for NRF Grant Project	Thematic Areas
CoRG1	Humanities	Education and Training
CoRG2	Humanities	Social Development and Welfare
CoRG3	Humanities	Sports and Recreational Development
CoRG4	Science	Agriculture and Food Security
CoRG5	Science	Health and Social Welfare
CoRG6	Science	Health and Social Welfare
CoRG7	Cross-Cutting	Science and Technology, Innovation System Management
CoRG8	Cross-Cutting	Science and Technology, Innovation System Management

Furthermore, the co-authors analysed the responses by identifying relevant themes aligned with the three research questions and research focus. The table categorises thematic areas within the National Research Fund(NRF) Grant Project framework, distributing them across three broad groups: Humanities, Science, and Cross-Cutting fields. Each group is associated with specific codes (CoRG1 to CoRG8), identifying different thematic areas. The data were analysed, represented, and reported thematically in the study.

FINDINGS

The social interactions with the group members provided answers to the research questions stated as follows:

1. What are the collaborative experiences of NRF group members in public universities in Ekiti State, Nigeria?
2. What challenges do NRF groups face in fostering collaboration, and how are these challenges addressed?
3. What impact does participation in NRF groups have on professional development and educational outcomes, particularly in advancing SDG 4?

1. General Response from CoRGs

CoRG1's Response:

Positive Experience: CoRG1 highlighted that their experience in terms of insights in working as a university-based team was overall positive.

Interdisciplinary Collaboration: They valued the opportunity to collaborate with researchers from different disciplines, which broadened their perspectives.

Challenges: They faced challenges related to coordinating schedules and ensuring the equitable distribution of tasks. In a comment by a member of CoRG1, the challenge of “lateness to online meetings almost truncated the whole process but for the timely intervention of the team leader”.

CoRG8's Response:

Initial Confusion: CoRG8 expressed that the collaboration's purpose was evident during their third meeting with the principal investigator.

Network Contribution: They noted that the network contributed partly to the initial confusion.

CoRG2, CoRG3, CoRG4, CoRG5, CoRG6, CoRG7's General Response:

Structured Collaboration: These groups found that working in the NRF group was more structured than other collaborations.

Funding and Resources: The provision of funding and resources by NRF allowed them to focus on research without financial worries, a benefit not always present in other collaborations.

2. Collaboration Dynamics

Influence of Group Dynamics:

Positive Dynamics: The group dynamics were largely positive, with clear communication and mutual respect.

Challenges: Differences in work styles sometimes led to delays, but the group leader was crucial in mediating these issues. All groups experienced this challenge.

Compelling/Challenging Collaboration Example:

Joint Publication: An example was when the groups worked on a joint university-sponsored publication. Initially, aligning contributions was challenging, but they developed a workflow that matched each member's strengths, leading to a successful outcome. According to CoRG3, “My group members had to revert to SWOT strategies before work could go on at a stage of the research”

3. Communication and Coordination

Effective Communication Strategies:

Virtual Meetings and Online Tools: Regular virtual meetings and shared online workspaces like WhatsApp video, Audio calls, and Google Drive effectively maintained communication and reduced misunderstandings.

Task Coordination Management:

Expertise-Based Task Assignment: Tasks were assigned based on expertise, though overlapping responsibilities sometimes needed clarification. A detailed project timeline with explicit task allocations eventually improved coordination.

4. Institutional Support

University Support:

Administrative Support: Universities provided essential administrative support, especially financial support, for organising a hands-on workshop on the need for collaborative research in winning the NRF grant for the universities focused on this study. Furthermore, the CoRGs from the Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Nigeria, spoke extensively on the university's financial support at various critical stages of the research. A group member reported that “ we almost lost hope in continuing with the NRF project until the university ensured us of total support for the provision of funds for network, computer systems and necessary reinforcement of the Centre for Research and Development of our university”.

Bureaucratic Challenges: However, the bureaucracy involved in securing approvals and accessing funds was a significant hindrance to the smooth operation of the groups.

Importance of Institutional Resources:

Crucial Role: Institutional resources were crucial, with funding allowing focus on research and administrative support aiding logistical matters.

5. Professional Development

Impact on Professional Development:

Enhanced Research Skills: Involvement in the NRF group enhanced research skills, particularly in interdisciplinary collaboration. The team leaders of the CoRGs were reported to have exposed members to relevant research skills suitable for composing NRF Concept Notes.

Project Management Experience: Participants gained valuable project management experience, which benefits their future careers. In support of this observation, the CoRGs from the Sciences commented thus:

“We later realised the vast difference between writing academic papers and writing for winning grants. They are two different things when it comes to project management skills.”

Academic Career and Visibility:

Increased Visibility: The collaboration led to multiple publications, which increased participants' visibility in the academic community and provided networking opportunities with researchers from other institutions.

6. Impact on Quality Education (SDG 4)

Contribution to Quality Education:

Innovative Teaching Methodologies: Research focused on developing innovative teaching methodologies integrated into the university's curriculum, improving education quality.

Challenges in Aligning with SDG 4:

Practical Application: Ensuring research had practical applications at the grassroots level was challenging. Bridging the gap between academic research and real-world educational outcomes requires additional effort and collaboration with local educators.

7. Sustainability and Future Collaborations

Critical Factors for Sustaining Collaborations:

Trust and Communication: Trust, mutual respect, clear communication, defined roles, and ongoing institutional support are critical for long-term collaborations.

Interest in Future Participation:

Future Involvement: Participants expressed willingness to engage in future NRF groups due to the professional and academic benefits but noted the need for better-defined roles and streamlined administrative processes.

8. Reflection and Suggestions

Key Lessons Learned:

The authors of this study requested the groups to interact and reflect on the experiences garnered during the NRF group work. These are some extracts from the groups' comments:

CoRG1: *"We thought the NRF grant was meant for a selected few scholars until the team leader made us realise the potency of coming together as a collaborative group. The merits of tolerance, resilience and moral support worked in our favour. From the preceding, the importance of flexibility and adaptability in collaborative research was highlighted, emphasising leveraging each member's strengths and being open to new ideas."*

CoRG4: *"The Principal Investigator leading my group was too rigid and refused to come to our level as junior lecturers. As a last resort, we had to make a joint complaint to the centre in charge of the NRF grant. Consequently, another team leader emerged from our group, and work went well."*

CoRG5: *"My group members helped matters when some digital challenges confronted us. The digital natives among us ensured that the Concept Note was eventually submitted to the NRF portal a few hours before the submission deadline."*

RECOMMENDATIONS FOR IMPROVEMENT

Targeted Support: Suggestions included more targeted university support, training on collaborative skills, better access to resources, and aligning research objectives with SDG 4 to enhance group impact.

The findings from this study provide significant insights into the dynamics of multidisciplinary research collaborations, particularly in the context of NRF-funded projects. The participants in this study valued the opportunity to collaborate with researchers from various disciplines, which they perceived as a critical factor in broadening their research perspectives. This finding aligns with the observations of Katz and Martin (2021), who emphasised that interdisciplinary collaboration enhances research innovation by integrating diverse expertise and perspectives. However, this benefit came with its own set of challenges. Participants reported difficulties in coordinating schedules and ensuring the equitable distribution of tasks. The issue of "lateness to online meetings," as highlighted by a member of CoRG1, underscores the logistical challenges inherent in such collaborations. This revelation echoes the findings of Williams and Anderson (2022), who observed that time management and scheduling conflicts are common barriers in virtual multidisciplinary collaborations.

The positive group dynamics observed in this study, characterised by clear communication and mutual respect, are consistent with recent research on effective team collaboration. For instance, Zhang et al. (2023) highlighted that psychological safety and mutual respect within teams are critical for fostering an environment where open communication and collaboration can thrive. However, the study also revealed that differences in work styles sometimes led to delays, a challenge reported across all groups. This finding is supported by the work of Liu and Huang (2021), who found that while diversity in work styles can drive creativity, it also requires careful management to prevent inefficiencies and delays. The role of the group leader in mediating these issues was crucial, indicating the importance of leadership in maintaining team cohesion and productivity.

The effectiveness of regular virtual meetings and the use of shared online workspaces, such as WhatsApp Video and Audio calls, as well as Google Drive, in maintaining communication and reducing misunderstandings was another key finding of this study. In this regard, Garcia et al. (2020) note that the success of virtual teams is highly dependent on the quality of their communication tools and the frequency of their interactions. These tools facilitated real-time communication and collaborative document editing, mitigating some of the challenges associated with geographical dispersion.

Moreover, the role of universities in supporting these research groups cannot be understated. Providing administrative and financial support was highlighted as a critical factor in the success of these NRF-funded projects. The observations of Rodriguez and Patel (2022) emphasised that institutional support, especially in the form of funding and logistical assistance, is essential for the success of research collaborations. The workshops funded by the universities in this study not only equipped researchers with the necessary skills to collaborate effectively but also increased their chances of securing NRF grants, thereby contributing to the overall success of their research endeavours.

CONCLUSIONS, LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Conclusions

This study has comprehensively analysed collaborative dynamics in university-based interdisciplinary research collaborations funded by the National Research Foundation (NRF). The findings emphasise the value of interdisciplinary collaboration, which expands researchers' perspectives and fosters innovation. However, the study also underpins the significant challenges associated with coordinating schedules interpersonal experiences and ensuring the equitable distribution of tasks, particularly in a virtual environment. Despite these challenges, positive group dynamics characterised by clear communication and mutual respect were noticeable, underlining the importance of psychological safety and effective leadership in successful collaborations.

Regular virtual WhatsApp video and audio meetings and shared online workspaces proved effective strategies for maintaining communication and minimising misunderstandings. Moreover, the role of public universities in providing

essential administrative and financial support was critical, particularly in organising NRF grant-winning workshops that equipped researchers with the skills necessary for successful collaboration.

The study contributes to the existing literature by reaffirming the importance of community-based research and effective communication strategies in facilitating successful interdisciplinary research collaborations. It also underscores the need for focused leadership to navigate the challenges present in the university system, encompassing diverse work styles and logistical complexities.

While this study offers valuable insights, it is essential to acknowledge its limitations. First, the research focused on preparing specific sets of NRF Concept Notes within a particular context, which may limit the generalizability of the findings to other types of research collaborations or funding bodies. Additionally, the study relied heavily on qualitative data, which, while rich in detail, may be subject to biases in participants' self-reporting. Another area for improvement is the potential variability in institutional support across different universities, which may be considered under-explored in this study. In conclusion, an improved comprehensive understanding of the subject can be attained through an extended period involving several CoRG members with a vested interest in winning NRF grants for their universities.

Future research could build on these findings by exploring several key areas. First, a comparative study across different research collaborations—such as those funded by different organisations or those involving various academic disciplines—could provide a more nuanced understanding of the factors contributing to successful collaboration. Additionally, quantitative studies could be conducted to measure the impact of specific institutional support mechanisms on research outcomes, providing a more objective assessment of their effectiveness.

Further research could also explore the long-term impacts of multidisciplinary collaboration on researchers' career trajectories and academic visibility, particularly their contributions to addressing global challenges comprising Sustainable Development Goals (SDGs). Finally, investigating the role of cultural differences and their influence on collaboration dynamics in international research teams would offer valuable insights into managing diversity in global research initiatives.

This study lays a foundation for continued exploration of the factors that drive success in interdisciplinary research collaborations and underscores the ongoing need to diagnose diverse experiences and institutional support to foster effective and innovative dispositions towards winning NRF grants in the university milieu.

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