

Graduate Grant-Writing Workshop



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ABOUT THE GGWW

Rationale for offering a GGWW

Following the PhD, many early career scholars experience difficulty transitioning into their role as an independent researcher. Often graduates experience periods without research positions or funding that will support investigator-driven research led by the young scholar. Some graduates lack confidence in pursuing research funding for research of their own

design. Early career researchers also benefit from mentorship from experienced scholars who have achieved success in securing research funding, and who also have experience on the other side of the review process – i.e., from serving as peer reviewers, and as members of grant-review panels.

The process of writing grant applications takes considerable time, effort and motivation, but does become more efficient and effective through practice. Like all forms of academic writing, workshops and similar programs can be beneficial in terms of learning how to approach the behaviour effectively. The GGWW also provides structure to ensure participants are able to pursue the work to completion through deadlines, requirements for periods dedicated to writing, and through encouragement and modeling of the behaviours of feedback, reflection and revision.

Position of the GGWW in the CARTA curriculum

The position of the GGWW, in CARTA's training continuum, is following the PhD and in the early post-PhD period. The GGWW will not repeat CARTA PhD training but encourage participants to use all CARTA (and other research training and reference materials) for self-directed study and as resources. GGWW participants are to be independent scholars and take personal responsibility for their critical scholarship. Facilitators are not instructors but serve more as mentors encouraging critical thinking modelling collaboration. Everyone involved will engage in peer-to-peer constructive critique and mutual support.

The GGWW also is part of the larger trajectory of CARTA activities working toward expanding and strengthening the African research community at large. A long-term intended outcome of the GGWW is that African research graduates submit more applications for funding, submit stronger applications, and collaborate to develop more research grants among themselves, and with other early career and senior researchers around the world. It follows that these outcomes increase the likelihood of enhanced research resources for African scholars and institutes and that a greater number of African PhD graduates attaining research positions. Evaluation of the GGWW will include active follow-up surveys of participants regarding their confidence, intentions and actual grant submissions, as well as passive follow-up of their career trajectories

Characteristics of GGWW participants

Description: PhD Graduates with CARTA or comparable training, who are dedicated to a career in research in the African context and seeking a post-doctoral fellowship, first independent research grant, post-PhD.

Eligibility:

PhD graduate of CARTA or comparable training.

- Completed the PhD within the past two years (precise eligibility may vary with call)
- Early career graduates who have not yet secured ongoing independent scientist faculty positions or secured independent research support as principal investigator,
- eligible for post-doctoral positions or CARTA re-entry grants.

Requirements for attendance:

- Application submitted for the GGWW that is complete, and has identified one or more appropriate calls for funding and to which the candidate and proposed research area are eligible.
- Completed required background preparation, pre-workshop as required, at the assigned timeline (approximately 2 weeks prior to residential workshop)

Overview of the GGWW objectives and processes

Learning outcomes

By the end of the GGWW course, the Participants will be able to:

1. Identify a research gap and develop answerable research questions in the participant's area of expertise and interests;
2. Identify funding opportunities appropriate for the research area, the applicant and proposed research context
3. Develop plans for dissemination and stakeholder engagement
4. Prepare a research budget proposal including identifying funding sources, tailoring proposal to funding sources, drawing on expertise, developing a budget,
5. Develop study and data management plans
6. Critique research ideas and plans and to integrate feedback into a proposal
7. Demonstrate time management and productive writing behaviours by meeting all deadlines
8. Demonstrate critical thinking and critical scholarship through self-reflection, use of feedback and provision of constructive critique to other participants' work.

Overview of GGWW activities from perspective of participants

Application and review process

- Applicants respond to the call to participate and submit the application on time
- These are reviewed by the organizing committee and participants notified

Online review and preparation

- In a hybrid version of the GGWW, participants are required to complete a asynchronous online course which encourages a high-level review of knowledge and skills acquired in the PhD program
- The review covers the following Lessons:
 - An overall orientation to approach to learning and scholarship at the residential GGWW including expectations and roles of the facilitators and participants
 - A high-level review of the skills and effort required to identify the research gap, develop a literature review to motivate the research
 - A reminder that scholars must recognize the breadth of research approaches available and must make critical decisions about the research approach that will be best aligned with the specific research objectives.
 - A reflection on their experience with the research approach proposed, particularly if this approach is different from the approach or methods used in the PhD.

- Engagement with external resources on research methods to ensure that the research proposed is of high quality and minimizes risk of research flaws and bias; and
 - Skills of finding opportunities for research support and development of the application are reviewed
- At the end of the online course, participants submit a more detailed reflection of the work they have completed in preparation for grant writing.

Residential writing retreat.

This is the heart of GGWW. It is a five-day residential retreat with periods of facilitated group activities and independent writing. An in-person, residential workshop is recommended because of the advantages of having protected time for writing while separated from other responsibilities.

The writing intensive incorporates the external peer review process and additional sessions on grant sponsorship, and leading one's own research.

[Cross ref to appendix Schedule of week-long workshop](#)

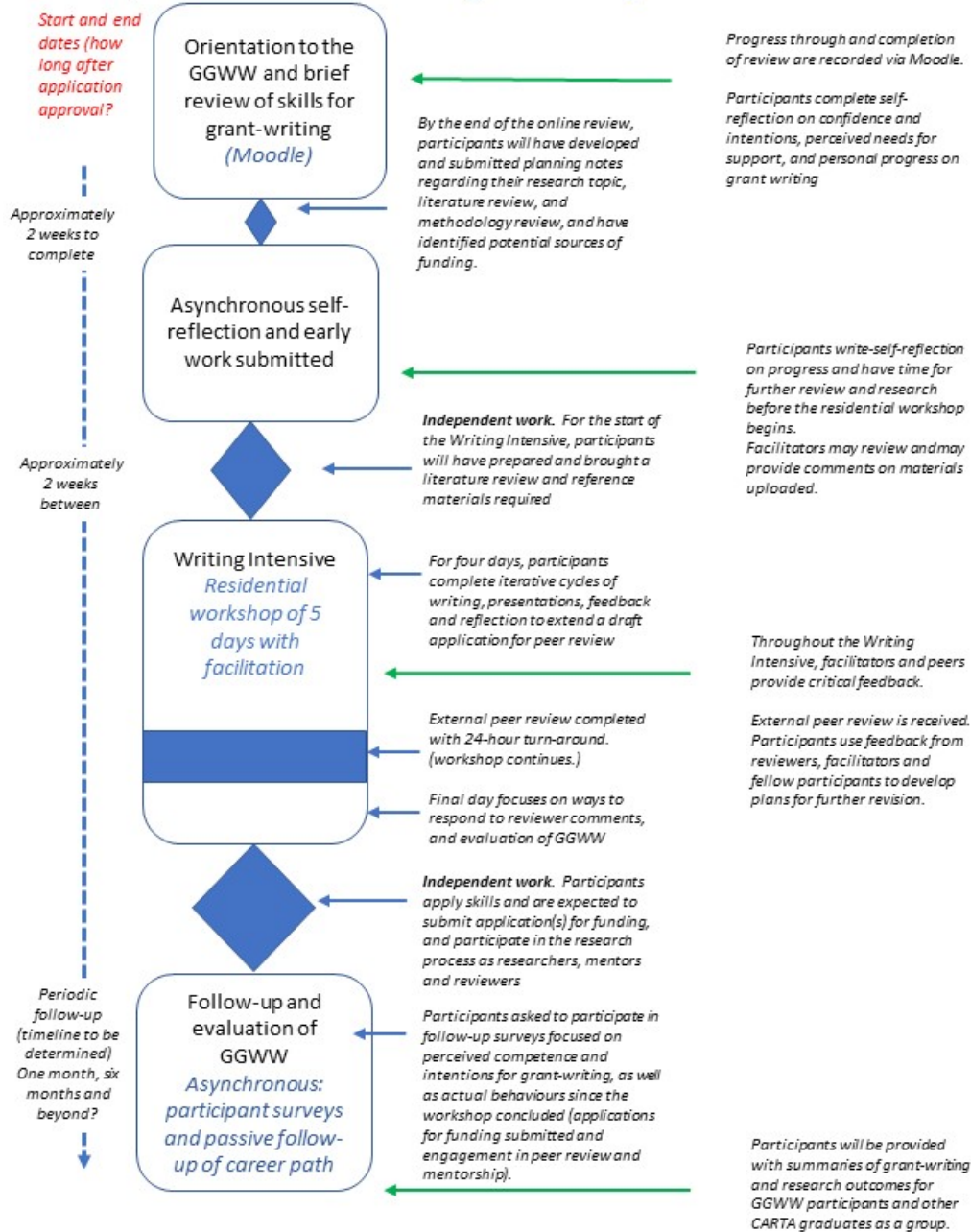
[Cross-ref to section focused on international review as 'key feature' below](#)

Evaluation of the GGWW and follow-up

Participants spend the final half-day of the residential workshop providing feedback and reflection on the workshop to the organizers.

Following the workshop, participants should receive follow-up surveys to assess their perception of the value of the workshop about a month following attendance and ideally over a longer period of follow-up (e.g., six months). Participants should also be asked about plans to submit the application developed, or whether they have submitted this or other applications.

GGWW, hybrid course component



Progression through the GGWW from participant perspective

GGWW LEADERSHIP AND STAFF

Duties and Qualifications of GGWW leads

Description: This is an experienced academic leader who will initiate and oversee the planning and execution of current or future GGWWs.

Summary of duties and expectations

The responsibilities of the Lead organizer of the GGWW go far beyond being able to plan a workshop and coordinate the staff, budget and venue for a scientific meeting.

The GGWW Lead must have the skills, reputation, interpersonal skills and professional network to build a broad, multidisciplinary team of dozens of participants necessary to the success of the workshop.

- First, the Lead has the responsibility to create a team of facilitators, to mentor them
- Second, the Lead is responsible for the considerable task of creating and maintaining a large list of external reviewers from among the world's most accomplished researchers and to ensure this list of reviewers, collectively, covers the areas of expertise required to meet the needs of the GGWW participants.
- Finally, the Lead must be committed to be present and an active participant in the workshop itself. The Lead has a role in creating and maintaining an environment at the workshop that is egalitarian, supportive, fosters hard work and critical thinking and maximizes the value of the experience for the participants.

Qualifications:

PhD, established researcher, in a recognized leadership position (or with past international leadership experience) and positioned to work in collaboration with colleagues at a variety of participating and supporting institutions. Plus,

- Experience in writing grants and obtaining funding, as well as mentorship of grant/award applicants.
- Experience as a peer review, review panel member/discussant, or grant agency board.
- Experience in coordination of scientific meetings and collaborations

Ideal attributes:

- Breadth of experience across funding agencies
- Breadth of experience writing or mentoring grant applications (and dissertations) across diverse subject areas, contexts, and study design order to be able to compare and contrast approaches and support trainees working in diverse areas of research
- Academic leadership position at a CARTA partner or other African-based academic centre.
- Maintains a broad network of collaborators across multiple research organizations and academic centres

Duties and Qualifications of GGWW facilitators

Description: This is a mid-career academic with experience in supervision and mentorship of graduate research students and experience in applying for and receipt and administration of research grants.

Experience as an internal and external reviewer of grants and membership on review panels and boards is preferred.

Qualifications:

PhD, established researcher, with experience in several of the following areas:

- Writing grants and obtaining research funds
- Mentoring, internal institutional reviewer, instructor of research degree programs or courses including critical research development or grant writing.
- Peer reviewer, review panel member/discussant, or grant agency board member.
- Supervisor of senior graduate students or post-doctoral participants.
- Commitment to attendance and active participation at all stages of the GGWW as required, including active presence in workshops, leading small group discussion and writer presentations, working one-on-one with individual workshop participants who have your sought advice or expertise

Ideal attributes:

- Friendly, encouraging and supportive manner, and commitment to creating an environment of collegiality and absent of hierarchy
- Breadth of experience across multiple funding agencies and research opportunities
- Breadth of experience writing or mentoring grant applications (and dissertations) across diverse subject areas, contexts, and study designs
- Flexibility and willingness to support trainees working in diverse areas of research, substantively or methodologically
- Training as a facilitator in the CARTA program, or comparable experience with active learn, Socratic and critical seminar style of instruction and mentorship.
- Formal or informal training as an instructor in support of academic writers (e.g., course instruction with research proposals)
- Willingness to use one's own network of collaborators and colleagues to help identify opportunities and resources for participants, and to connect participants with contacts and resources.
- Willing to share one's own experience with research, funding and grantsmanship and to compare and contrast the experiences of self and other in grantsmanship and research

Characteristics of a TEAM of Facilitators for a GGWW

Collectively, the GGWW facilitators function as a family or team, who fulfil shared and complementary roles.

GGWW leads have a responsibility to assemble the team consciously, to support all the GWW participants with diverse research interests in terms of subject areas and research approach.

Building a team may involve heterogeneity across a number of areas, including:

- A wide variety of research disciplinary perspectives (e.g., social sciences, epidemiology, demography, health policy, evaluation and research in health care and health professions).
- A variety of research areas of focus (e.g., infectious disease, chronic disease, maternal and child health, mental health and well-being and others)
- Breadth in terms of expertise with research methodologies (e.g., qualitative research, basic science research, surveillance and demography, quasi-experimental, etiology and program evaluation research, clinical and field experiments, and health systems/health outcomes research).
- Experience in multiple research contexts including various locations and contexts (in Africa, Europe, North America and elsewhere, and in a variety of specific settings, academic, government, NGO and for-profit sector.)
- Collectively reflect diversity of backgrounds which may include gender, race and sociodemographic background, age, and stage of career

No team can be expected to reflect expertise in every permutation and combination of the participants interests. Greater breadth and flexibility (within and between facilitators) make it more likely that participant can learn multiple perspectives. A diverse team, working together also models collaboration, critical thinking, and a willingness to learn from other perspectives and disciplines.

Successful GGWW Leads will maintain networks of potential facilitators and welcome new facilitators from a variety of other centres. The Leads will also have to follow the timeline of the GGWW application process and make final adjustments to the team of facilitators to reflect the actual research interests of the incoming participants.

Qualifications and criteria for external reviewers

Description: An important part of the GGWW is the receipt of multiple external reviews to a largely-completed draft of the developing research proposal. This cannot happen without a large group of recruited, and prepared, international external reviewers, and it is a major responsibility of the GGWW Leads to recruit and communicate with the reviewers.

It is essential that enough qualified reviewers are identified to ensure that each GGWW participant has their draft application sent out to at least three, well-chosen reviewers, and receives back at least two external reviews on the timeline of the GGWW.

Qualifications of reviewers:

- Early, mid-career or senior researchers at universities and research institutes in many parts of the world
- Reviewers may be approached because of their ability to provide expert review to specific applications being developed at the GGWW
- Reviewers may also be approached for general subject area, or methodological expertise (e.g., qualitative research, quasi-experimental designs, laboratory methods, biostatistics)

Ideal attributes and approach:

- It is good if GGWW Leads or facilitators know the reviewer and their reputation for being reliable and committed to providing constructive reviews for early-career scholars.

- The reviewer should be prepared to give negative feedback where they see significant weaknesses, without being derogatory or de-motivating; as well as identifying strengths in the application.
- The reviewer should explain areas of identified weakness and may provide guidance on how (behaviourally) to improve the work, but the reviewer should not rewrite the application
- The reviewer should not forecast success or failure for grant funding as their assessment may not be correct.

It is not an expectation of the reviewers that they agree to be contacted by the participants, in future. Ideally reviewers should be open to the idea of becoming part of the GGWW participant's broader research network when this is mutually beneficial. [Please see APPENDIX 3 - Correspondence with facilitators and reviewers](#)

THE GGWW AND KEY FEATURES OF THE TEACHING APPROACH

GGWW workshops have an intentional approach to facilitation. The participant and their developing proposal is at the centre. Didactic instruction is kept to a bare minimum and offered primarily to deliver instructions, establish expectations. Short presentations, though, will provide and feedback to the group and individual and will address common problems to avoid and solutions ([see Appendix 8: Risks and Mitigation for examples](#)).

Socratic approach to facilitation

Socratic teaching approach

The Socratic teaching method is not didactic but uses directive inquiry and questioning. The facilitator asks the learner to be conscious of their own mental processes and self-critical in their logical development of ideas and arguments. *Do you think you have explained this clearly? Would another person make the same connection? What evidence showed you that this intervention should have the desired effect? Is that from a theoretical perspective?* ([See also Appendix 7. Notes on dialogic teaching and assessment of critical thinking](#))

Through questioning, the facilitator assesses how the learner is demonstrating skills and behaviours acquired in the PhD process, and how effectively skills and behaviours are being reapplied to the current tasks. *Can you describe how you searched for a range of possible interventions, before zeroing in on this one? Have you identified experts and agencies who do research in this area and studied their works? Did you start with a range of secondary sources to give you an overview of the general state of knowledge in the area?*

Asking questions of the participant, and peers, ensures the participant gets authentic response and feedback from multiple perspectives. Other participants in small group sessions may be asked: *Do you agree with them that this argument leads to that? Is this clear to you as well? Do you think it is clearer now? Can you suggest other ways to expand on this?*

Being asked to think and reflect encourages participants to engage in their own internal dialogue of self-critique. Where the interaction is encouraging and not threatening, this normalizes the experience of receiving feedback and being challenged to defend one's positions (i.e., provide arguments to support), and to use feedback for revision and improvement. Revision is essential to effective writing.

Role of facilitators during the residential writing intensive

Participation and activities

Throughout, facilitators will encourage critical reflection and independent thought, as well as peer-to-peer discussion and feed-back. Periodically, facilitators will give debriefing comments with everyone participating. Debriefing will focus on challenges experienced by writers and constructive solutions to those challenges. For more information, ([see Appendix 8: Risks and mitigation](#)) which presents a collection of challenges that participants have experienced, and that facilitators have addressed, at prior GGWWs

One-on-one consultations about specific protocols should be on-demand, i.e., it is up to the fellow to seek guidance, and not rely on instruction. Multiple facilitators should be available throughout the week days and during breaks for ad hoc conversations and questions. When they are not engaged in discussion, facilitators may work on emails etc., but should be prepared to quickly switch to helping the Fellows if asked. Facilitators should encourage independence and guide participants to solve their own problems. For example, facilitators might model the behaviour of looking up a reference resource instead of just providing one. Requests for one-on-one conversations during nutrition breaks or evenings may be considered with appropriate request. (See Appendix A for notes on critical thinking and a dialogic style of facilitation as examples of approaches which may be used.)

Presentations, where made, will be brief 'pop-up' presentations or prepared videos of 5-10 minutes, followed by full- or small-group discussion. As opposed to re-teaching research skills, pop-ups should be responsive to the strengths and weaknesses of the work seen, so far, and emphasize constructive research and writing behaviours as well as critical thinking.

Expectations of participants and facilitators

Participants are adult learners and have the responsibility to take the lead in the development of a novel research concept and proposal for independent research. Table (x) provides an illustration of the complementary responsibilities of the participant versus the facilitator.

Table 1. Illustration of the separate responsibilities of GGWW participants relative to facilitators

Task	Participants	Facilitators
Literature review and research gap	Responsible for reviewing prior training on how to develop a literature review, use of frameworks to describe theoretical foundations and potential causal mechanisms for associations or interventions. Appropriate use of scoping reviews, systematic search for prior research relevant to the question	Reminds the fellow of writing methods and tools including frameworks to develop research proposals. Encourages participant to apply techniques of literature search such as making appropriate distinctions between major secondary sources and primary sources, writing an outline. Does not edit or direct the writing. Provides authentic critical response to short summaries of work, in group and table-top work. Encourages and rewards clarity of ideas and development of arguments. Uses Socratic questioning of writer and observers to ensure writer gets feedback, <i>“do you think you have explained this clearly; have you presented enough material to demonstrate that this is the intervention that should be examined and there are not alternatives already available?”</i> As applicable, the facilitators will direct participant to relevant literature, agencies authors, theoretical frameworks or methodology resources that are useful but have not adequately been explored. May suggest terms and sources for additional searches. Does not perform searches for the participant.
Articulation of research question and objectives	Takes ownership of development of the research statements based on critical review of literature.	Challenges the participant to develop clearer and more effective statements on research purpose; give feedback where writing and arguments are stronger.
Identification of research approach and specific methods	Must explore range of possible research methods and align selected approach with research objectives. Must seek out and use critical resources on methods.	Will encourage critical thinking and further study leading to strong research proposals; will direct participants to external resources for advice on methods.
Identification of opportunities for funding and completion of application draft	Is responsible for using various resources to identify opportunities for post-docs and grants (e.g., CARTA and home institution websites, list servers, internet searches)	Guides the participant to select funding opportunities of appropriate scale and for appropriate stage of career and timeline. Asks what guidance the participant is using to learn more about funding opportunities and their priorities and requirements. Shares personal and professional experience and insight, and general tips for successful grant

Scaffolded Development of the Grant Proposal

Scaffolded writing assignments break down a large and complex task into manageable pieces. Often general outlines or structured frameworks are developed first, which are presented for critical feedback and reflection. Over a few to many iterations, full length prose is developed on the framework. Typically each section becomes longer, or sections are added. The framework itself is refined through cycles of critique, reflection and revision. For more information on the approach, [\(see Appendix 5: Illustration of scaffolded expansion of the draft research grant \(days 1-3 of residential workshop\)\)](#)

Formative feedback and revision are key element of the scaffolding process. With each pass, the writing usually becomes more clear and effective. Often, the focus is narrowed and sharpened and complex plans are presented in a more logical flow. As length and detail are added (e.g., a general research approach develops progresses to an analysis plan), weakness or lack of clarity in the high-level framework are often revealed. It is common the initial plans are abandoned or changed substantially, in the process. The authentic objective may have been vague, or misunderstood but becomes clear.. One may have identified major rationale or feasibility issues that must be addressed. Revision may include a major shift in research approach to align with revised objectives. However, most learners who have faced a major rewrite (following the 'ahah' moment), can produce a new draft more efficiently than the first time. Re-writing is often more purposeful, and built on stronger logic.

It is a lot of work to create a research grant and the process can seem intimidating and insurmountable. Therefore, it is rewarding and motivating for the writer to have tangible evidence of progress along the way. As pieces of a major work are revised, smaller pieces reach final form at each pass. The writer can then see tangible proof of progress on a large, complex task that may have seemed daunting.

International Peer Review Process

Recruiting reviewers for the participants' proposals is a long process that needs to be started at least two months before the workshop. This is informed by the several challenges that are anticipated in this process. The obvious one is that there is no proposal to use as guide to search for the reviewers except for the proposed title. Other challenges to get sufficient numbers of reviewers that are experts in their field, have some degree of experience and seniority in research, and also have understanding that the review should be supportive and help the early career fellow as they develop their very first larger and independent research proposal to a national or international funder or research council.

The recruitment process

1. Based on the titles (and applications) request for suggestions from focal persons and ask them to suggest one or several reviewers for a specific proposal.
2. For that proposal that does not get any suggestions or that it needs additional suggestions, use pub med or other literature databases to search for suitable reviewers
3. Use a preformatted but personalized letter to contact the reviewers. If they do not respond, send a kind reminder a week later. Note acceptance and rejections. To all responders (both yes and No) ask them to suggest 2 alternative reviewers (the person contacted usually knows the research area better than facilitators/focal persons).

4. For each proposal, assign at least 3 international reviewers specialized in the proposed research question and/or methodology. Try to get senior researchers as reviewers. Since many requests may be sent at the same time, some proposals may get more than 3 reviewers and this is welcomed. Exhaust the list of suggested reviewers for a specific proposal even when they have three reviewers already assigned.

From experience 70% respond to the request after a reminder. Of these little more than half accepts. That means that to get at least three reviewers, on average 7-8 request needs to be done per fellow's proposal. Also from experience, around 75% of the reviewers that have accepted will deliver a review at the time of the deadline.

Communication

The participants are supposed to submit their proposal at the latest 0800 AM on the fourth day of the workshop. Sending out a large number of individualized emails to each reviewer takes a very long time and will infringe on the few hours of review. Therefore it is advisable to set a *google doc* (or something similar) with one folder for each proposal so that the reviewers are granted access to the specific folder containing only the proposal they should review.

Since for some of the reviewers, it may be weeks since they accepted to do the review, a series of reminders and instructions are sent out closer to the date of the review as follows;

- A. 10-14 days before the participants' deadline (day 4 of the GW) an email is sent to **all** thanking the reviewers for accepting to participate. It is important to repeat the purpose of the review as spelled out in the invitation letter giving more details on the process, how to access the proposals, and when the deadline of the reviews is. Since the reviewers are in several time zones a time zone schedule is attached so they easily can translate EAT to their local time to minimize the risk of using their local time as a deadline.
- B. 4-7 days before the participants' deadline (day 4 of the GW) an email is sent to the group of reviewers reviewing the same proposal. In the mail, give a summary of the instructions and the google doc link to the specific folder where they will find the proposal for downloading. It is important not to put all the reviewers' emails in the "to" line but rather in the "bcc". From experience, if they see that several others will review the document, they may not have the same urgency in their busy schedule during their workday to finalize and submit their review on time since others will do that too.
- C. 1 day prior, (Wednesday night) a short email is sent to all reviewers just informing them that at 08:00 AM the next day (Thursday), they may access their proposal to review and refer to the previous email where they find the link to their respective folder. Also, inform them that they should submit the reviews to an email, address. (given below).
- D. Just after the participants' deadline (Thursday morning), still another email is sent to all tell them that now they can access the proposals. Also, inform them that they should submit the reviews by replying and attaching the review in their reply (see below).

It may seem rational to ask the reviewers to submit their reviews to the folder where they downloaded the proposal. However, it is difficult and tedious to keep track of this on the receiving side since we need to keep track of the received number of reviews. Inevitably, some needs to be reminded during the morning and some may not return any review at all. In some cases, some participants may get only 1 review. The facilitators at the GGWW will need to act as reviewers and give feedback to the best of their ability.

When the reviews are received, they are ticked off and moved to respective fellow's folder for them to access and read. [*\(see Appendix 3: Correspondence with facilitators and reviewers\)*](#)

Evaluation of a Graduate Grant Writing Workshop

The graduate grant writing workshop evaluation aims to get feedback from both the participants and facilitators on how the sessions were conducted and how useful they were. The participants' evaluation is done for both the virtual and face to face sessions, and a follow up ~6 and ~12 months after the workshop to assess the short-term outcomes of the workshop. The virtual and face to face evaluation questions focus on the how the useful the sessions held were to the participants learning, participants experiences while interacting with peers and facilitators, the usefulness of the materials shared during the workshop, and changes in attitude, skills and knowledge as a result of the workshop.

The reflections and information collated through the different evaluation tools will be included in a report and shared with the organizing team and the facilitators, and will inform planning of future workshops, both from an operational perspective and academically, to provide an experience conducive for achievement of the learning goals.

Details of how each evaluation is done is below

Online session evaluation

The evaluation of the online session focus on the participants' experience of the online learning including what they liked and what could be improved to facilitate their learning in future, how useful they found the materials shared and whether they found the materials as a good future reference. The questions will include

1. Please tell us what you liked most about online sessions
2. What could be improved to facilitate your learning online
3. How useful were the materials shared for your learning?
4. Did you find the virtual materials useful as preparation for the face-to-face workshop?

The organizer should consider adjusting the questions to cover any additional content. To better gauge how the virtual engagement helped preparing for the face-2-face workshop, the evaluation should be done together with the post-workshop.

End of the workshop evaluation

The evaluation of the face-to-face sessions is done in two steps. First, a town hall meeting is held on the last day of the workshop. The participants share their experiences - what they learned, the impact of the workshop and any other information they consider important - with the organizing team. The facilitators are asked to step out to give the

participants space to share their thoughts about what occurred during the week. Second, an evaluation survey is shared for the participants to provide their feedback in writing on various aspects of the training based on questions. The questions focus on the participants expectations, how the sessions of the workshop enhanced their learning, changes in attitudes, skills and knowledge on various aspects, general feedback on training and the logistics. Example of the questions are at the end of the annex.

Six months follow up

To monitor the short-term outcomes of the graduate grant writing workshop, a follow up evaluation is administered six months after the face-to-face session. In the case of CARTA, and to avoid overloading the participants with reports, the survey is included in the regular participants' semi-annual reports done after every six months. The organizer of the workshop will have to consider their context and how regularly they interact with the participants to design an evaluation process that ensures a high response rate.

The evaluation focuses on outputs of the graduate workshop i.e number of grant proposal developed, number of grant proposal submitted, number and amount of grants won from the developed proposals, usefulness of materials shared during the workshop and if they have found any other materials that they would consider useful to be shared during the workshop. The questionnaire may include questions such as

1. Have you developed any grant proposals after you attended Have you submitted any grant proposal since your participation in the GGWW?
2. How many applications have you made
3. What was the outcome of your applications
4. If won a grant, please share details of funder, call, amount won (USD) and grant start date
5. Please tell us if you have any other achievement as a result of participating in the graduate workshop

Facilitators survey

We also administer the facilitators evaluation to collect feedback from the workshop facilitators to assess their experience. The areas of focus are on the participants level of preparedness for the workshop, what they liked about the workshop, logistics including the accommodation and their suggestion on how to improve the workshop. The evaluation is administered on the last day of the training.

Annex 1: Sample questions for the post face to face training event.

1. What were your expectations for the graduate workshop
2. To what extent were your expectations met
3. Prior to this workshop, how many grant proposals have you been involved in developing
4. Were any of your previous grant proposals successful?
5. How would you rate your grant proposal writing skills prior to the workshop? (Weak, average, strong)
6. As a result of the work in the GW, what gains did you make in your understanding of each of the following aspect (Scale no gains, little gains, moderate gains, good gains, Not applicable)
 - a. Writing for/to a funder/donor

- b. Literature review process
 - c. Grant review process
 - d. Budgeting and financial planning
 - e. The relationship between the general concepts in grant proposals
7. As a result of the work in the GW, what gains did you make in the following skills (Scale no gains, little gains, moderate gains, good gains, Not applicable)
 - a. Phrasing the key concepts into a research gap/problem statement
 - b. Writing a literature review that is supportive of your hypothesis and approach
 - c. Choosing the appropriate methodology for your study
 - d. Developing a budget that includes everything needed to perform your proposed study
 - e. Handling feedback and critiques to your work
 - f. Using comments received in the review process to improve your proposal
 - g. Identifying funding opportunities
8. Influence on attitude change: As a result of your work in this workshop, what GAINS DID YOU MAKE in the following ATTITUDES?
 - a. Your comfort level in working with complex ideas
 - b. Confidence that you understand the process of grant writing
 - c. Confidence that you can write a grant proposal
 - d. Willingness to seek help from facilitators and mentors
 - e. Willingness to seek help from peers
9. Integration of your learning: As a result of your work in this workshop, what GAINS DID YOU MAKE in INTEGRATING the following?
 - a. Connecting key workshop ideas with other knowledge
 - b. Applying what you have learned in this workshop in other situations
 - c. Using systematic reasoning in your approach to problems
 - d. Using a critical approach to analyzing data and arguments in your daily life
10. Please comment on how the approach of this workshop helps you to remember an adapt basic concepts in grant proposal writing
11. What will you CARRY WITH YOU into other workshops or other aspects of your life?
12. The workshop overall: HOW MUCH did the following aspects of the workshop HELP YOUR LEARNING? (Scale No help, A little help, Moderate help, Much help, Great help, Not applicable)

- a. Instructional approach applied in the workshop
 - b. How the lectures and writing sessions fit together
 - c. The pace of the workshop
13. Please comment on how the INSTRUCTIONAL APPROACH to this workshop helped your learning.
14. How has this workshop CHANGED THE WAYS YOU LEARN?
15. Workshop Activities: HOW MUCH did each of the following aspects of the workshop HELP YOUR LEARNING? (Scale No help, A little help, Moderate help, Much help, Great help, Not applicable)
- a. Preparatory work before workshop
 - b. Listening to presentations during workshops
 - c. Presenting and discussing work in progress with facilitators
 - d. Presenting and discussing work in progress with peers
 - e. Giving and receiving comments from all participants
 - f. Submitting work for peer review
 - g. Receiving peer review
 - h. Discussing peer review within the workshop
16. Workshop resources: HOW MUCH did each of the following aspects of the workshop HELP YOUR LEARNING? (Scale No help, A little help, Moderate help, Much help, Great help, Not applicable)
- a. Lecture slides
 - b. Supplementary information on drive
 - c. References that came up during lectures
 - d. Preparatory materials sent in advance
17. The information you were given: HOW MUCH did each of the following aspects of the workshop HELP YOUR LEARNING?
- a. Explanation of how the workshop activities related to each other
 - b. Explanation of why the workshop focused on the topics presented
18. Please comment on how the support you received from others helped your learning in GW
19. In conclusion, on a scale of 1 to 5, rate your overall realization of the learning outcomes of the Graduate workshop in the following areas:
- a. Writing a proposal that addressed a research question that was in your area of expertise and that you had wanted to answer

- b. Understanding how to structure and write the proposal including literature review, methodology, methods including analysis plans, and impact plans
- c. Understanding the process of developing a research proposal including identifying funding sources, tailoring a proposal to funding sources, drawing on expertise, developing a budget, management plan and dissemination strategy
- d. Seeking and receiving a critique of research ideas and plans and integrating the feedback into a proposal
- e. The possibility of successfully submitting work/proposal within stipulated deadlines

APPENDICES

APPENDIX 1. Overall task checklist for TOT Leads

S.No.	Milestone	Considerations
1	Set the dates of the workshop	<p>As simple as this may look, it requires a combination of logistics and engagement of facilitators:</p> <ol style="list-style-type: none"> 1. The usual first step is to engage a core group of facilitators and gauge their availability around a time of the year, then narrow it down to the week when they will be requested to block out from Sunday to Sunday 2. Organizers should consider their institution's schedule (examination periods, senate/ board meetings) and how it will impact availability of facilitators and target participants 3. The workshop is designed to be a residential event, thus, it requires availability of the selected venue
2	Enrol facilitators	<p>Beyond the core facilitators initially contacted, the organizer needs to firm up availability of a diverse group of facilitators. The organizer should consider experts in the different areas covered during the workshop:</p> <ol style="list-style-type: none"> 1. Research and methodology experts: we do not try to have in the room experts in all the content areas in which the participants will write, but the organizers should form a team including experts on: <ol style="list-style-type: none"> a. qualitative and quantitative methods; mixed methods researchers b. researchers or academics with deep understanding of the ethics review process and community and policy engagement c. experts who can facilitate a discussion on collaborations, mentorship and other topics included in the program 2. development and finance officers who can deliver specific sessions on engagement with funders and navigating the fundraising landscape (adapted to the context of the participants) as well as budgeting or, if not available, researchers with experience on these areas

3	Open the call for applications OR send out invitations to potential participants	<ol style="list-style-type: none"> 1. Draft call: it needs to be very clear about: <ol style="list-style-type: none"> a. when the workshop will take place and which prior engagement is expected; b. eligibility criteria; c. how to apply; d. application deadline (include time and timezone to avoid confusion) 2. Set system to receive applications <ol style="list-style-type: none"> a. e-mail: ensure that all are found and receiver's email is not going to be clogged and become dysfunctional b. submission via specific system is recommended: REDCap, Google
4	Selection of participants	<p>The selection process depends on the base of candidates an organizer is working with. The workshop could be open to any early career researcher, or to a specific department, or somewhere in between. It could be very open or very targeted. It could also be a mix of more senior and very junior PhD graduates. It all depends on the needs of the organizing institution, but organizers should consider their audience when putting out the call and design a program that meets the needs of the participants.</p> <ol style="list-style-type: none"> 1. Open call: <ol style="list-style-type: none"> a. Administrative due diligence b. Shortlist: the shortlisting may be done competitively (those showing more commitment, more support to dedicate time, better drafts), by topic (looking for a specific composition of the group like at least two working on each area, or groups who will apply together to write a collaborative grant), or first-come-first-served when everyone gets the same chances and those responding faster can secure a spot if their application is complete 2. By invitation only: <ol style="list-style-type: none"> a. Define inclusion criteria b. Contact those meeting the criteria <p>In both cases, the organizer needs to decide how many participants are they taking</p>
5	Recruitment of external reviewers	<p>With the shortlisted participants and their topics, the organizer needs to liaise with a wide base of potential reviewers, experts in different areas that will sympathize with the cause of reviewing one or more proposals for your workshop with a VERY quick turn around. The ideal target is that every participant receives three external reviews on the fifth day of the workshop. More details are shared in the Appendix.</p>

6	Logistics arrangements	<ol style="list-style-type: none"> 1. Accommodation and catering: consider final number of people who need accommodation and conference package, both trainees and facilitators 2. Venue: plan the space needs for the workshop to happen. The interactive sessions need people to roam around the room, hang their flipcharts/posters, and have space to discuss while conversations are happening in other areas of the room 3. Flights and ground transportation: if your participants are international, you need to book their flights in advance but also ensure that the visa application process is initiated early enough 4. Allowances: each institution and project handles this differently. The conditions and expectations by participants, facilitators and organizers should be clear long before the workshop. Everyone needs to be informed of what is covered, what is not, and if any receipts need to be submitted to make any specific claims that are covered. It is advisable to mention what is included and explicitly say that anything else is not covered. 5. Logistics note: it is important to provide specific information to participants as to what to expect, what is included, and what they should keep in mind as they prepare to join the face-to-face workshop. A template letter is shared (link Mercy's 2022GGWW letter)
7	Design program	Knowing the number of participants and once facilitators have confirmed, the sections of the program should be distributed and the agenda for this specific event made available
8	On-line content	<p>The GGWW has a virtual asynchronous component that is meant to get the participants ready for the face-to-face event. The materials should be uploaded to the institutional e-learning platform or arrangements to utilize the APHRC Virtual Academy should be made well in advance. The organizer needs to ensure that:</p> <ol style="list-style-type: none"> 1. Materials are uploaded and structured 2. Facilitators are given access as teachers and have time to revise the content, schedule assignments and finalize e-learning component 3. Participants are given access as students and can access the platform without difficulties 4. Deadlines for assignments are clearly displayed on the platform and also communicated on direct e-mail to the participants
9	Set up system to share proposals for review and external reviews	Once participants are selected, the organizer can start to set up the system where the rapid external review will take place. It is important to give access to the reviewers and the participants ahead of time and confirm that they can, indeed, access their respective folders. Alternatively, the review process can be coordinated via e-mail, but this has proven cumbersome. The decision should be made well in advance and make sure everyone involved has specific instructions of what is

10	Design evaluation	<p>The evaluation of the workshop is an important element of improving future workshops. The evaluation should be done through a platform accessible to the organizing team in the long term so that the data collected is not lost. Whether it is an on-line system like REDCap, Google Forms, or Mentimeter, the results of the evaluation should be archived offline for future reference.</p> <p>We always combine a live discussion or “town hall” evaluation during the last day of the workshop and an individual survey. Our experience says that the response rate increases if we give participants time during the workshop to complete the evaluation, which we try to do after the town hall so that they have the discussion</p>
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APPENDIX 2. Call for applicants and related materials

Enrolling Facilitators

Beyond the core facilitators initially contacted, the organizer needs to firm up availability of a diverse group of facilitators. The organizer should consider experts in the different areas covered during the workshop:

1. Research and methodology experts: we do not try to have in the room experts in all the content areas in which the participants will write, but the organizers should form a team including experts on:
 - a. qualitative and quantitative methods; mixed methods researchers
 - b. researchers or academics with deep understanding of the ethics review process and community and policy engagement
 - c. experts who can facilitate a discussion on collaborations, mentorship and other topics included in the program
2. Development and finance officers who can deliver specific sessions on engagement with funders and navigating the fundraising landscape (adapted to the context of the participants) as well as budgeting or, if not available, researchers with experience on these areas.

Once the facilitators ‘availability is firmed up, the organizer then allocates specific sessions to each facilitator and develops a program.

Selection of participants

The selection process depends on the base of candidates an organizer is working with. The workshop could be open to any early career researcher, or to a specific department, or somewhere in between. It could be very open or very targeted. It could also be a mix of more senior and very junior PhD graduates. It all depends on the needs of the organizing institution, but organizers should consider their audience when putting out the call and design a program that meets the needs of the participants.

1. Open call:
 - a. Administrative due diligence: the call should highlight the objectives of the workshop, mode of delivery (whether the whole workshop will be face to face or will be blended), commitment required, eligibility criteria, instructions for making the applications and the timelines. The organiser should ensure the

- participants meet the eligibility criteria e.g. PhD graduates or have at least submitted their thesis for examination.
- b. Shortlist: the shortlisting may be done competitively (those showing more commitment, more support to dedicate time, better drafts), by topic (looking for a specific composition of the group like at least two working on each area, or groups who will apply together to write a collaborative grant), or first-come-first-served when everyone gets the same chances and those responding faster can secure a spot if their application is complete.
 - c. Feedback: feedback should be shared with successful as well as unsuccessful applicants.
2. By invitation only:
- a. Define inclusion criteria: if the workshop is for a targeted group, the facilitator should establish the criteria depending on the specific needs of the organisation.
 - b. Contact those meeting the criteria: direct contact to those who meet the criteria should then be done highlighting the time, mode of delivery and instructions for application if needed.

In both cases, the organizer needs to decide how many participants they are taking and adjust facilitation needs.

Set up system to share proposals for external review.

At the end of the workshop, the participants should develop a proposal for a research grant. This proposal should be reviewed by at least 3 experts in their area of research. The organiser should set up an online system e.g. Google Drive, where the participants can upload their proposals and the reviewers can access and share their feedback. The folders should include as much information as possible to help the reviewers in their review e.g. the application documents. Both the participants and reviewers should have editing access to the folder.

The organiser needs to prepare to dedicate time for follow up with reviewers and to reallocate any unreviewed proposals to other reviewers should this become necessary.

Communication to Facilitators

Graduate Workshop 2022

Warm Greetings from CARTA! We hope you have been keeping well.

The Graduate Grant Writing Workshop 2022 is scheduled to take place physically in Nairobi Kenya from November 28-December 3 2022. Before that, the participants will be engaged online in the month of October with some pre-workshop assignments.

Please let us know whether you will be available as a facilitator for the face to face workshop and whether you will be able to review pre-workshop assignments one day in the month of November, most likely between November 17-19.

Kindly confirm your availability as soon as possible for further planning. We will share further details on your role in due course.

We look forward to hearing from you and working with you.

Program for the Graduate Workshop



Dear Facilitators,

Thank you for accepting to facilitate this year's Graduate Workshop. You will receive the invitation letters within the week for visa application where needed.

Please find attached the draft program for your reference. Please let us know whether you are okay with the sessions allocated to you and whether you would also like to facilitate any other sessions.

We look forward to hearing from you.

Sample Call

CALL for Applications: 2022 CARTA Graduate Workshop

CARTA is now accepting applications for the 2022 CARTA Graduate Workshop slated to take place from October to December 2022.

This year's workshop will be blended, using Moodle as a learning platform in October and a residential week in Nairobi, Kenya, between November 28 and December 2, 2022. Successful applicants will have access to the learning platform from October 10, 2022. Assignments must be submitted before October 31, 2022. The effort needed during this phase should be taken into account when submitting an application and making a commitment to the workshop.

CARTA's Graduate Workshop is geared towards securing the future, and fostering career growth of its high-achieving graduates. The workshop will equip post-doctoral early career researchers with skills to develop a competitive proposal for a personal award to support their research or a research grant/large project that they will lead.

Eligibility

This call is open to CARTA graduates who have completed their doctoral programs. CARTA participants who have submitted and/or defended their thesis and are awaiting corrections or graduation are also eligible but must have completed all corrections before September 15, 2022.

Priority will be accorded to applicants who have not attended the Graduate workshop before. Graduates who have attended a previous workshop can still apply and will be given a slot if available.

Note: slots for this workshop are only 20 and therefore selection will be on a strict first-come first-serve basis.

Register here: <https://redcap.aphrc.org/redcap/surveys/?s=PAYFCT7EWW3ETE4F>

Sample communication to applicants

Communication to Unsuccessful Applicants

Thank you for your application to participate in the CARTA Graduate Workshop 2022. Unfortunately, we had limited opportunities and could only enroll graduates who have not participated before. We encourage you to look out for other opportunities that may arise in the future

Communication to Successful Applicants



Following your application, I am pleased to let you know that you have been selected to participate in the Graduate Workshop 2022. The face to face session will take place from November 28- December 3rd 2022 in Nairobi Kenya. Before that you will be engaged in pre-workshop engagements starting from October 10th.

We shall share further information in the coming days concerning the online engagements and your preparation for the graduate workshop.

APPENDIX 3: Correspondence with facilitators and reviewers

Content is simply a copy of a few key template letters or emails with – especially reviewers – sent from the chair. (e.g., just a few specific examples from 2020 or 2022.

Why important?

We are asking a lot of the reviewers and the timeline is very complicated. If they don't realize when (in their timezone) the materials will arrive and when they are due back, it costs the participant a review.

Over time, the instructions became quite sophisticated and included tables or graphics showing timelines by timezone. This experience is useful to future organizers.

Sample Email 1 (Instructions for reviewers of proposals from the CARTA graduate workshop 2022)

Dear reviewers,

On behalf of the Consortium for Advanced Research Training in Africa (CARTA), I wish to thank you for accepting to review proposals from our workshop participants who are currently participating in our Graduate workshop. It was concluded after previous Graduate workshops that the most important single factor for the success of the workshop and the improvement of the proposals was the input from the reviewers, so your support is very valuable.

I wish to share the guidelines that we will all use for this exercise.

1. Participants will submit their proposals (the research part only) latest by 08:00 AM East African Time, on Thursday, December 1, 2022, to the CARTA e-mail address (carta@aphrc.org).
2. The proposals will be made available to you immediately thereafter through a Google doc link that is distributed to you next week, You can see in the attached picture what time it is in your time zone. Each reviewer will receive 1 - 2 proposals (depending on how many you have agreed to review).
3. You will critique the proposal and submit a report (as detailed as possible in a supportive and constructive manner) to carta@aphrc.org, as soon as you can, but preferably before midnight East African Time (see picture with time zones).

The workshop participants have been asked to write for review the sections of a proposal that directly relate to the design of the research to be undertaken – background, aim, research questions, objectives, methodology, methods, an indication of the timetable (in the form required by the funder so the section headings may vary).

- We ask you to judge whether the proposal is convincing, logical, relevant, has fatal flaws, etc, and advice on how it can be improved. You can decide in what way and length to present the comments

Since participants will target different funders, we have requested them to provide the basic guidelines from the funder that they will target. You should determine whether the fellow has followed the guidelines.

For review is not include sections such as budget, intellectual property, CV, institutional setting, training, project management, mentors, and general dissemination (they may have objectives

Sample Email 2 (Reviewers Summary of Instructions)

Dear reviewer,

The review date is less than a week away, and I wish to repeat the the core of the guidelines and deadlines share with you in an email last week.

1. Participants will submit their proposals (the research part only) latest by 08:00 AM East African Time, on Thursday, December 1, 2022,
2. The proposals will made available to you immediately there after through a Google doc link that be distributed to you next week You can see in the attached picture what time it is in your time zone. Each reviewer will receive 1 - 2 proposals (depending on how many you have agreed to review).
3. You will critique the proposal and submit a report (as detailed as possible in a supportive and constructive manner) to carta@aphrc.org, as soon as you can, but preferably before midnight East African Time (see picture with time zones).

The workshop participants have been asked to write for review the sections of a proposal that directly relate to the design of the research to be undertaken – background, aim, research questions, objectives, methodology, methods, an indication of timetable (in the form required by the funder so the section headings may vary).

- We ask you to judge whether the proposal is convincing, logical, relevant, has fatal flaws etc and advice on how it can be improved. You can decide in what way and length to present the

Email Sample 3 (Reminder before the review dates)

Dear Reviewer,

Hope this email finds you well.

This is just to inform you that at 8:00 AM EAT tomorrow Thursday, December 2022, you may access the proposals you committed for reviewing.

As explained in the previous email, please use the google link provided to access the proposals in the folder. After the review, you should submit the review report to the email address carta@aphrc.org, as soon as you can, but preferably before midnight East African Time (see picture with time zones).

We are very grateful to you for undertaking this task and for your commitment to do this in such a tight timeframe.

Regards,

Sample Email 4 (Last instruction to the reviewers)

Dear reviewer,

Today is the date for the review. Please access the proposals using the google link provided in a previous mail.

After the review, you should submit the review report to the email address **carta@aphrc.org**, as soon as you can, but preferably before midnight East African Time (see picture with time zones).

We are very grateful to you for undertaking this task and for your commitment to do this in such a tight timeframe.

Sample Email 5. (Requesting your expertise in the CARTA 7th Graduate Workshop in Nairobi, November 28th to December 2nd 2023)

Dear Dr/prof XXXXX,

We work with a programme called Consortium for Advanced Research Training in Africa (CARTA and see below). We have received your contact details from xxxx who will be one of the facilitators in the upcoming CARTA Graduate workshop in Nairobi/ who is the CARTA focal person in your institution/ who referred me to you because you have the expertise that we are looking for.

The Graduate workshop is a one-week long workshop for CARTA Ph.D. graduates. The workshop aims to equip the participants with skills to develop a successful and substantial proposal for a personal award to support their research, a postdoctoral fellowship, or a large project they will lead. The participants have worked on their research questions and literature review before coming to the workshop where they will spend the week working on their research proposals and receive guidance from various facilitators.

At the end of the week, the morning of Thursday, **December 1** (8 AM EAT Nairobi), their proposals will be sent to external international reviewers. The reviewers are expected to send feedback sometime on **the same day (evening at the latest)** so that the participant can discuss the feedback with the facilitators during the next day of the workshop (December 2, 8 AM EAT Nairobi).

The reviewers will receive sections of a proposal that directly relate to the design of the research to be undertaken (background, aim, research questions, objectives, methodology, an indication of the timetable), and also the basic guidelines from the funder that they will target.

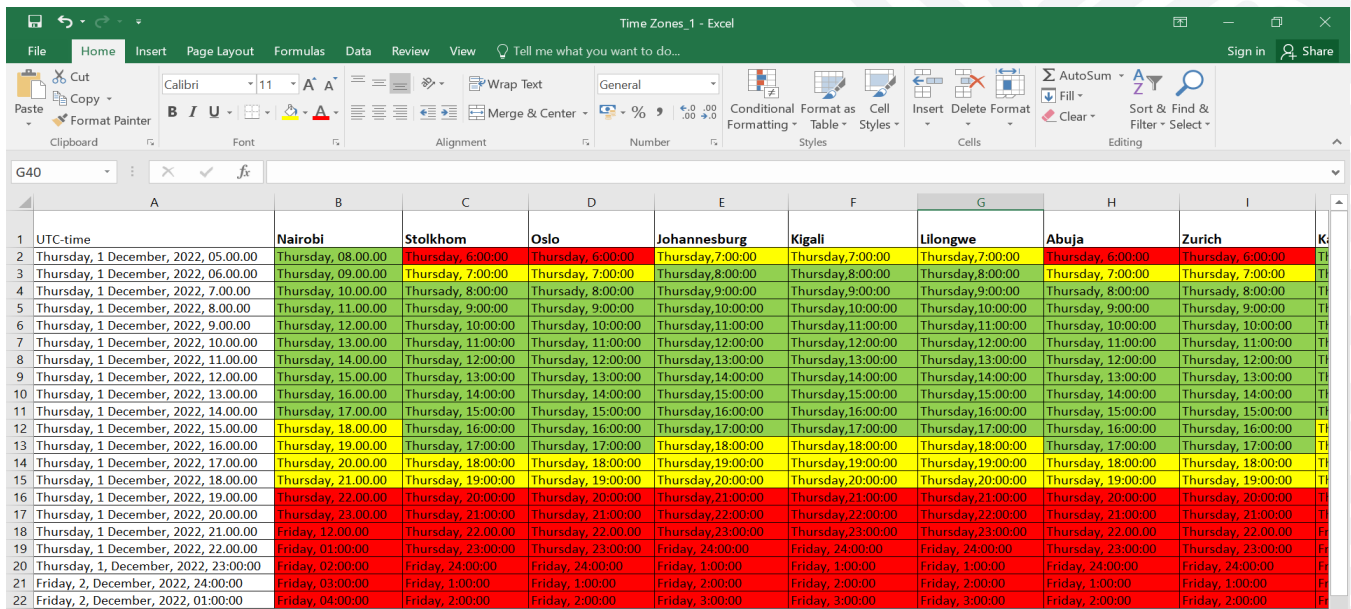
The international peer review is a very important part of the workshop and for the improvement of the proposals. The input from the external reviewers can make a big difference when it comes to the success of the proposals.

- We would appreciate if you could review the proposal titled “XXXXXXXXXXXX” by YYYYYY (please note that the title is preliminary. It might change during the course of the workshop.)

If you are available and would like to support the participant with your feedback, please let us know at your earliest convenience.

Reviewers will receive more detailed instructions in due time.

Thank you and best wishes,



UTC-time	Nairobi	Stockholm	Oslo	Johannesburg	Kigali	Lilongwe	Abuja	Zurich
Thursday, 1 December, 2022, 05:00:00	Thursday, 08:00:00	Thursday, 6:00:00	Thursday, 6:00:00	Thursday, 7:00:00	Thursday, 7:00:00	Thursday, 7:00:00	Thursday, 6:00:00	Thursday, 6:00:00
Thursday, 1 December, 2022, 06:00:00	Thursday, 09:00:00	Thursday, 7:00:00	Thursday, 7:00:00	Thursday, 8:00:00	Thursday, 8:00:00	Thursday, 8:00:00	Thursday, 7:00:00	Thursday, 7:00:00
Thursday, 1 December, 2022, 7:00:00	Thursday, 10:00:00	Thursday, 8:00:00	Thursday, 8:00:00	Thursday, 9:00:00	Thursday, 9:00:00	Thursday, 9:00:00	Thursday, 8:00:00	Thursday, 8:00:00
Thursday, 1 December, 2022, 8:00:00	Thursday, 11:00:00	Thursday, 9:00:00	Thursday, 9:00:00	Thursday, 10:00:00	Thursday, 10:00:00	Thursday, 10:00:00	Thursday, 9:00:00	Thursday, 9:00:00
Thursday, 1 December, 2022, 9:00:00	Thursday, 12:00:00	Thursday, 10:00:00	Thursday, 10:00:00	Thursday, 11:00:00	Thursday, 11:00:00	Thursday, 11:00:00	Thursday, 10:00:00	Thursday, 10:00:00
Thursday, 1 December, 2022, 10:00:00	Thursday, 13:00:00	Thursday, 11:00:00	Thursday, 11:00:00	Thursday, 12:00:00	Thursday, 12:00:00	Thursday, 12:00:00	Thursday, 11:00:00	Thursday, 11:00:00
Thursday, 1 December, 2022, 11:00:00	Thursday, 14:00:00	Thursday, 12:00:00	Thursday, 12:00:00	Thursday, 13:00:00	Thursday, 13:00:00	Thursday, 13:00:00	Thursday, 12:00:00	Thursday, 12:00:00
Thursday, 1 December, 2022, 12:00:00	Thursday, 15:00:00	Thursday, 13:00:00	Thursday, 13:00:00	Thursday, 14:00:00	Thursday, 14:00:00	Thursday, 14:00:00	Thursday, 13:00:00	Thursday, 13:00:00
Thursday, 1 December, 2022, 13:00:00	Thursday, 16:00:00	Thursday, 14:00:00	Thursday, 14:00:00	Thursday, 15:00:00	Thursday, 15:00:00	Thursday, 15:00:00	Thursday, 14:00:00	Thursday, 14:00:00
Thursday, 1 December, 2022, 14:00:00	Thursday, 17:00:00	Thursday, 15:00:00	Thursday, 15:00:00	Thursday, 16:00:00	Thursday, 16:00:00	Thursday, 16:00:00	Thursday, 15:00:00	Thursday, 15:00:00
Thursday, 1 December, 2022, 15:00:00	Thursday, 18:00:00	Thursday, 16:00:00	Thursday, 16:00:00	Thursday, 17:00:00	Thursday, 17:00:00	Thursday, 17:00:00	Thursday, 16:00:00	Thursday, 16:00:00
Thursday, 1 December, 2022, 16:00:00	Thursday, 19:00:00	Thursday, 17:00:00	Thursday, 17:00:00	Thursday, 18:00:00	Thursday, 18:00:00	Thursday, 18:00:00	Thursday, 17:00:00	Thursday, 17:00:00
Thursday, 1 December, 2022, 17:00:00	Thursday, 20:00:00	Thursday, 18:00:00	Thursday, 18:00:00	Thursday, 19:00:00	Thursday, 19:00:00	Thursday, 19:00:00	Thursday, 18:00:00	Thursday, 18:00:00
Thursday, 1 December, 2022, 18:00:00	Thursday, 21:00:00	Thursday, 19:00:00	Thursday, 19:00:00	Thursday, 20:00:00	Thursday, 20:00:00	Thursday, 20:00:00	Thursday, 19:00:00	Thursday, 19:00:00
Thursday, 1 December, 2022, 19:00:00	Thursday, 22:00:00	Thursday, 20:00:00	Thursday, 20:00:00	Thursday, 21:00:00	Thursday, 21:00:00	Thursday, 21:00:00	Thursday, 20:00:00	Thursday, 20:00:00
Thursday, 1 December, 2022, 20:00:00	Thursday, 23:00:00	Thursday, 21:00:00	Thursday, 21:00:00	Thursday, 22:00:00	Thursday, 22:00:00	Thursday, 22:00:00	Thursday, 21:00:00	Thursday, 21:00:00
Thursday, 1 December, 2022, 21:00:00	Friday, 12:00:00	Thursday, 22:00:00	Thursday, 22:00:00	Thursday, 23:00:00	Thursday, 23:00:00	Thursday, 23:00:00	Thursday, 22:00:00	Thursday, 22:00:00
Thursday, 1 December, 2022, 22:00:00	Friday, 01:00:00	Thursday, 23:00:00	Thursday, 23:00:00	Friday, 24:00:00	Friday, 24:00:00	Friday, 24:00:00	Thursday, 23:00:00	Thursday, 23:00:00
Thursday, 1, December, 2022, 23:00:00	Friday, 02:00:00	Friday, 24:00:00	Friday, 24:00:00	Friday, 1:00:00	Friday, 1:00:00	Friday, 1:00:00	Friday, 24:00:00	Friday, 24:00:00
Friday, 2, December, 2022, 24:00:00	Friday, 03:00:00	Friday, 1:00:00	Friday, 1:00:00	Friday, 2:00:00	Friday, 2:00:00	Friday, 2:00:00	Friday, 1:00:00	Friday, 1:00:00
Friday, 2, December, 2022, 01:00:00	Friday, 04:00:00	Friday, 2:00:00	Friday, 2:00:00	Friday, 3:00:00	Friday, 3:00:00	Friday, 3:00:00	Friday, 2:00:00	Friday, 2:00:00

APPENDIX 4: Illustration of scaffolded expansion of the draft research grant (days 1-3 of residential workshop)

Table X Illustration of scaffolded progression of research questions to a proposal (used over the first several days of the in person writing workshop. Lightly shading indicates discuss; unshaded material explicitly presented is summary presentations and in developing draft

Section of flip-chart summary (and portion of prose being developed)	Pass 1. Background, research gap and question	Pass 2 Research question and approach	Pass 3 Approach and design framework	Pass 4 Approach, design and analysis plans
Background and literature review	Initial background on problem or context	Revised background on problem or context	Improved background section leading more efficiently to research gap and approach	Refined prose. A complete and effective background section, progressing logically to research approach
Statement of research question and objectives	Statement of objectives of the research as an idea	Objectives are more operationalized	Clearly operationalized objectives aligned to approach	Clearly articulated research question and achievable objectives

Research approach	General research approach anticipated, often implied from research question	High level identification of research approach (e.g., general form of methodology – experimental, quasi-experimental;	Refined description of research approach, connected to methodological resources	Final form statement of objectives and approach
Research proposal		Anticipation of proposal elements, target population, recruitment and available data	Major design elements in high-level, conceptual form (e.g., point form sampling and measures)	Refined, organized and effective summary of proposed research
Analysis plans			Framework for analysis and methods	Analysis plan aligned to achieve stated objective
Detailed budget		General considerations of costs and resources (in discussion)	Costs and resources anticipated	Detailed budget

APPENDIX 5: Daily progress poll and feedback

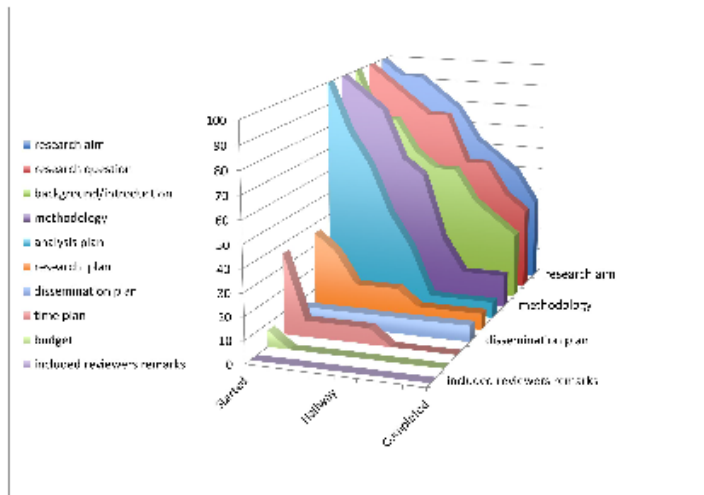
Examples of feedback on daily progress, as developed by Håkan Billig.

Daily target report

Day of submission	
Fellows name	
Type of application	
Funder organisation	

	Started			Halfway			Completed		
research aim	14	13	13	12	11	9	8	7	5
research question	14	13	12	11	11	8	8	6	5
background/introduction	14	11	11	9	8	8	6	5	4
methodology	14	13	12	9	8	4	2	2	2
analysis plan	14	11	9	6	4	1	1	1	1
research plan	5	4	2	2	2	1	1	1	1
dissemination plan	1	1	1	1	1	1	1	1	1
time plan	5	1	1	1	1				
budget	1								
included reviewers remarks									

	Started			Halfway			Completed		
research aim	100	93	93	86	79	64	57	50	36
research question	100	93	86	79	79	57	57	43	36
background/introduction	100	79	79	64	57	57	43	36	29
methodology	100	93	86	64	57	29	14	14	14
analysis plan	100	79	64	43	29	7	7	7	7
research plan	36	29	14	14	14	7	7	7	7
dissemination plan	7	7	7	7	7	7	7	7	7
time plan	36	7	7	7	7	0	0	0	0
budget	7	0	0	0	0	0	0	0	0
included reviewers remarks	0	0	0	0	0	0	0	0	0



APPENDIX 6: Notes on dialogic teaching and assessment of critical thinking

Dialogic teaching pedagogy – Definition and principles

“ Dialogic teaching is a model of instruction that fosters continuous and controlled dialogue between students and teachers, as opposed to traditional teacher-centred, presentation-based methods of instruction. It involves talk that goes beyond questioning-answering that has a knowledge transmission function foremost. Dialogic pedagogy encourages students to narrate, explain, analyse, speculate, explore, evaluate, discuss, argue, etc. It also requires students to learn to listen to their peers, think about what they are saying, give them time to think and respect their viewpoints. [...] Teachers need to develop a high level of awareness of their speech level and interactions with students, including how it stimulates their self-confidence, level of thinking, and creative and critical questioning. [...]

Five core principles describe dialogic pedagogies (Alexander, 2017[25]):

- **Collectivity:** Students address learning tasks together.
- **Reciprocity:** Students listen to each other, share ideas and consider alternative perspectives.
- **Support:** Students express their ideas freely, without fear of being wrong and they support one another to reach mutual understandings.
- **Cumulation:** Students build ideas from others’ oral contributions, which adds to a coherent line of thinking.
- **Purposefulness:** Classroom talk is open and encouraged, but it is also planned and framed in order to achieve specific learning objectives. “

Source: Vincent-Lancrin, S., et al. (2019), *Fostering Students' Creativity and Critical Thinking: What it Means in School*, Educational Research and Innovation, OECD Publishing, Paris, <https://doi.org/10.1787/62212c37-en>; (p.105)

Assessment of Critical Thinking

<https://www.oecd.org/education/class-friendly-assessment-rubric-critical-thinking.pdf>

APPENDIX 7: Risks and mitigations – tips for facilitators

The following are things facilitators should watch for. These reflect challenges identified at prior graduate grant writing workshops. The challenges may be addressed individually, in small groups, in peer-to-peer feedback and in pop-up presentations to identify challenges and motivate improvement.

Literature review.

- Missing essential background material to define the problem or associations of interest; missing basic science material on mechanisms; missing important social theoretical perspectives and history.
- Presents an argument to take action (e.g., prove in the application that an intervention or program must be adopted, but NOT an argument for an act of research (e.g., to evaluate whether or not the propose would have the desired effects).
- Fails to identify or summarize prior research similar to what is being proposed (e.g. other countries; other similar areas of inquiry).

- Is too narrow:
 - Missing relevant prior research from different research groups, or from different disciplines
 - Too narrow in terms of geography, context or study population; unaware of comparable or competing interventions
 - Fails to identify and critically discuss approaches or interventions other than what is being proposed
- An intervention is proposed, but poorly justified (e.g., insufficient information on intervention developed and efficacy; alternatives weren't considered; inadequate review of evaluative research completed elsewhere.)
- Too few or inappropriate mixture of literature sources or citations (e.g., effective use of authoritative review or burden of disease reports versus summaries of relevant prior studies).
- Literature reviewed not connected to approach and methods proposed.
- Difficulties with effective writing (organization, clarity of language and flow of arguments).

Research gap.

- Not developed from (sufficient) critical review of prior knowledge and research.
- Research objectives not clearly articulated; or is doesn't related to an answerable research question.
- Too ambitious or grandiose
- Multiple research objectives which
 - Are inadequately connected to each other by context, theory, mechanisms and stage of research)
 - Require incompatible research approach or methods (e.g., sampling for one sub-study will not work for another component)
 - Reflects a series of stages of research each conditional on the other (not feasible or too long a timeline for funding)

Methodology

- Fellows have expertise in methods in one area (e.g., what they used in their PhD) but not the required expertise in the methods being proposed for a new research question,
- Fellows may not be accessing appropriate methodological resources, or expertise, required to develop methods or analysis plans.
- Inappropriate overall research design for objectives (e.g., a prevalence study to motivate people to adopt an intervention, as opposed to evaluating the intervention).
- Specific design features (e.g., recruitment, measures and procedures) chosen without critical thinking, or without using resources for methodology and materials for critical appraisal for specific designs.
- Has not accessed methodological research or reviews for specific study features (e.g., prior research and critical reviews on measurement methods, reliability and validity for specific constructs; sampling designs; data collection methods; or laboratory and field methods)

- Multiple research questions which require different study designs, different participants or recruitment; different measures and/or different sample sizes.
- Overly ambitious or not feasibility (e.g., time course, costs, geographical range or extent of partnerships required).
- Uncertainty that all objectives would be met (e.g., later stages of work entirely dependent on incomplete earlier project).

Ethics

- Proposal includes unidentified or unmitigated risks to study populations, directly or indirectly.
- Failure to identify need for, or means to obtain research ethics review and approval
- Proposal does not consider authentic engagement of persons with lived experience or community

Funding and partnerships

- Fellows require support identifying potential sources of funding for proposed research or position.
- Fellows may identify an opportunity to which they or their planned research may be ineligible.
- Fellows may need guidance to design a research project at the right career stage; this may be a re-entry grant, small grant, or component identified as their work within a larger team grant; at this stage major multi-year and multiple-investigator grants are not likely to be appropriate

Proposed setting and collaborations

- Proposed setting, collaboration or supervision may lack opportunities for independent scholarship (for example continuing to work under a current supervisor if that setting doesn't support independent growth)
- Context of proposed research does not provide adequate facilities or expertise for mentorship

Budget and timeline

- Fellow needs guidance on what elements to include, realistic expectations for timeline, allowable expenses or costs