



Mbarara, Uganda – Workshop Report

January 27 – February 7, 2025



IWK Health



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MicroResearch

Resource limited countries bear 25% of the globe's disease burden yet the healthcare professional workforce is less than 1%. Furthermore, these low-income countries obtain only 2% of global research funds. In 2015, the *Sustainable Development Goals* (SDGs) were initiated as a program to build and extend the achievements of the United Nation's *Millennium Development Goals* (MDG) initiative. Encouraging national support for research infrastructure and developing local capacity to address complex health problems, remains a priority of the SDGs.

MicroResearch (www.microresearch.ca) is an innovative strategy aimed at building the capacity of local health care professionals (and public safety officials) to better address community problems by finding local solutions for local problems. The program began in 2008 as a collaboration between faculty at Mbarara University of Science and Technology (Jerome Kabakyenga) and Dalhousie University (Robert Bortolussi and Noni MacDonald). Since then, the research capacity building workshops have been held in 11 countries with over 1,600 participants. As of January 2025, over 130 locally driven research projects have been funded and launched with 52 completed, with results published in peer reviewed international health journals.

MicroResearch Process

The MicroResearch process advances in three phases: (i) Training Workshops are the first phase in the process. (ii) Teams formed during the workshops are then able refine and improve their research ideas for a grant submission to MicroResearch and review by an international panel of research experts from Canada and Africa. Once the research teams have responded to the reviewer recommendations with changes to their proposal, approval is given on scientific merit. (iii) Teams are then able to submit their proposal to their local Research Ethics Committee (REC or IRB) for approval and carry out their research. They are also encouraged to bring their findings back to the community through a Knowledge Translation plan. This report outlines the Research Training Workshop held in Mbarara, Uganda from January 27 – February 7, 2025.

Workshop Objectives and Organizers

The class comprised of 29 participants, divided into five teams. Participants were recruited from Mbarara University of Science and Technology (MUST), Kampala International University (KIU), Uganda Prisons Service (UPS), St. Francis Counsellor Institute, and Uganda Martyrs University in Western Uganda with coaches and co-teachers from Uganda and Canada.

The key objectives for the participants of the MR Workshop:



- to develop skills needed for community focused research,
- to develop skills to work in a multidisciplinary group and to become a team, and to write a successful community focused research proposal overview.

Organizers

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Facilitators, Guest Lecturers, and Coaches

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Workshop Partners

This workshops and projects emerging as a result are supported by partners including:

- Dalhousie University
- IWK Health
- MicroResearch private donors
- Mbarara University of Science and Technology

Workshop Planning and Recruitment

Participants were recruited through word-of-mouth at various university institutions and Uganda Prisons Service. The 29 participants included a wide range of disciplines and professions including physicians, medical laboratory technologist, counsellors, nurses, prison officers and prison medical staff among others.

The pre-workshop assessment was completed by 19 of the 29 participants (66%). As shown in the Pre-Workshop evaluation, 74% participants had previous research experience: four as study participants, six as research assistants, four as site investigators and six as principal investigator. Participants indicated the top things they wanted to get out of the workshop was:

- Research skills
- How to write research articles/how to get published
- How to write a research grant
- Finding research mentors
- Networking opportunities
- How to differentiate micro-research from macro-research
- Guidance on research publications and how to advance in future research
- Practical knowledge in research methods, theoretical orientation into research and exposure to population with diverse experience in research



Workshop

The ten-day workshop combined lectures and daily small group interdisciplinary, interactive working sessions. Many of the lectures, support materials and tool kits were recently updated and refreshed in 2024 to include new slides on using the internet, principles in research challenges in research, ethics, knowledge translation, budget, research to policy, and how to get published. Session lectures began at 10am local time. Session lectures were followed by group work sessions with the coaches. The lectures, exercises, and group work over the ten days led the participants step-by-step through the development of a research proposal overview. Participants moved from formulating an idea to the development of the research question, to the selection of methods to fit the questions taking into account the budget available, the formulation of the overview of a knowledge translation plan and determination of what, when and how to engage the respective communities. Daily workshop attendance ranged from 75% to 100%.

Team Research Proposals

As in previous workshops, the major educational component was centred on the proposal overview development in the interdisciplinary groups. There was a significant amount of content on Day 1 to orientate and allow participants to develop their own ideas into a research question based on their own experiences. On Day 2, the collaboration began with the participants placed in respective teams prior to the workshop beginning and working as teams in one of the five groups. Working in breakout spaces, the groups then discussed each member's question and applied the FINER criteria (discussed during the lecture on Day 2) and selected the "best" question to develop into a research proposal throughout the rest of the workshop. On Day 2, in the afternoon, a spokesperson for each group presented the topics to the class and noted the question selected by the group and the rationale for its selection. The questions selected on Day 2 were:

- Group 1 -What is the Prevalence of psychological stress and common coping strategies among teenage mothers at Nakivale refugee settlement?
- Group 2 - What are the key factors influencing proper household solid waste management practices in Mbarara town?
- Group 3 – How can affiliated stigma faced by caregivers of children with neurological disorders be addressed? A case of caregivers seeking care at Mbarara Regional Referral Hospital.
- Group 4 - What are the barriers to access of mental health services among prisoners in Mbarara Prison Complex, Southwestern Uganda?
- Group 5 - Assessing the Level of Adverse Childhood Experiences and Parenting Styles in Masha Subcounty, Isingiro District.

A discussion followed each group's presentation, with emphasis on importance of ensuring the



feasibility of the question with a narrowing and refining of each question as required.

The series of lectures that followed provided knowledge and skills needed to develop these questions into research proposal overviews. All the lectures included core elements to the MR concept, which were essential in preparation for the presentation on the final day.

Throughout the workshop, each group evolved as they embraced their respective roles and began to develop into a team. This growth was facilitated by working together on their proposals, supported by the facilitators and their coaches when available.

Final Day of the Workshop

On the final day of the workshop, each team presented the overview of their proposal in a ten-minute presentation to a panel of four local experts. The review panel, along with the two Canadian facilitators, adjudicated each team's presentation and suggested how the proposals might be further strengthened.

The local review panel included:

- Dr. Gertrude Kiwanuka – Associate Professor and Dean, Faculty of Medicine, Mbarara University of Science and Technology
- Dr. Jerome Kabakyenga – Former Director Maternal Newborn and Child Health Institute, Mbarara University of Science and Technology, Co-Founder MicroResearch
- Dr. Imelda Tamwesigire - Senior Lecturer, Department of Community Health, Mbarara University of Science and Technology
- Dr. Dorcus Achen - Faculty of Interdisciplinary Studies, Mbarara University of Science and Technology.

Final Team Questions:

1. **Team 1** - What is the prevalence of psychological stress and common coping strategies among teenage mothers at Nakivale refugee settlement?
2. **Team 2** - What are the key factors influencing proper household solid waste management practices in Mbarara town?
3. **Team 3** – How can affiliated stigma faced by caregivers of children with neurological disorders be addressed? A case of caregivers seeking care at Mbarara Regional Referral Hospital.
4. **Team 4** - What are the barriers to access of mental health services among prisoners in Mbarara Prison Complex, Southwestern Uganda?
5. **Team 5** - Assessing the level of adverse childhood experiences and parenting styles in Masha subcounty, Isingiro District.

Review Panels General Comments



The panel was impressed with the work of all the teams. The effort and application of MR was clearly displayed and evidenced throughout the presentations. The panelists were impressed by the research questions, the plans, and the delivery of the material.

The expert panel members felt that all five teams showed that they worked well together, with each member contributing to the final proposal presentation. The teams demonstrated how their research questions met the FINER criteria of MR. The KT plans and budgets were generally well done but will also need to be refined as the specific research plan is further developed. Each research proposal, of course, will require adjustments prior to be submitted for a MicroResearch grant. Teams need to show their project question is well-justified, that the design/methods are appropriate, and will be understood by reviewers from outside Uganda. All the projects will contribute to betterment of Mbarara and beyond, and worthy to proceed for a formal application for a MR Grant proposal.

Workshop Evaluation

An assessment of the workshop by participants as well as how well their team functioned was obtained using structured evaluation forms submitted with 26/29 (90%) of participants completing the form.

Overall, the workshop was highly regarded by participants who genuinely wanted to advance their research skills:

“To acquire better skills and knowledge that can boast my research confidence and become even a better researcher.”

“To learn more on research and grant writing, network for academic, professional and social purposes. All this will help in my further studies at doctoral level and for further research.”

Beyond the lectures that participants indicated were particularly helpful, like knowledge translation, research methods, and how to develop a research question, the participants really valued how the facilitators made the material easy to understand:

“The mentorship and guidance from experts provided valuable insights into improving research proposals and methodologies.”

“The facilitators from Canada, Prof. Rose and Stanley were so good, in that they made it easy to understand microresearch in its simplest form. Making it an area of interest to focus on.”

Overall, respondents indicated that the lectures and workshop content helped to “demystify” research and provided participants with the tools needed to help create positive changes in their communities:



“I will use the knowledge gained in transforming our community by designing the research questions that addresses our community challenges.”

“By applying it meaningfully and being community-focused so as to generate relevant knowledge and preserve it by adding value.”

Most participants responded in their evaluation that working as a team enhanced their research and the workshop experience stimulated their interest in research. Several indicated potential challenges in continuing to work as a team, including geographical distances and time constraints, however, mentorship, access to experts, and funding could help overcome these issues.

Recommendations and Comments

1. Recommendation #1:

- Providing onboarding for all facilitator/co-facilitator regarding the expectation of MR for the delivery approach of the lessons, ideally integrating an adult learning approach and instilling an appreciative inquiry perspective will ensure consistency in workshop facilitation. This could be in the form of a virtual teacher/co-teacher session several weeks in advance of the workshop.

2. Recommendation #2:

- Create and provide an onboarding session for all coaches provide clarity on the expectations of a coach, supports available, and the commitment required. This could be delivered the week prior to the workshop.

3. Recommendation #3:

- Ensure Canadian facilitators encourage completion of the pre-workshop questionnaire.

4. Recommendation #4:

- Ensure the logistics of the workshop are clearly communicated to all participants (students, coaches, facilitators). This includes messaging, expectations, start times, and other key details.

5. Recommendation #5

- Develop an alumni community of practice that creates a connection between participants, shares information, provides ongoing opportunities to support each other, and share research.

6. Recommendation #6

- Create a venue to gather, search and report on all research questions, proposals, and articles. This could use a university co-op program where students could research options and then implement the solution.

7. Recommendation #7



- Ensure coaches are present for their teams and facilitators schedule to teach when they agree to.

Acknowledgements

We would like to extend our thanks to the local site for providing administrative and organizational support. As well to the local volunteer coaches and co-teachers for their continued involvement in MicroResearch. Thank you to the panelists for their valuable feedback and constructive critiques on the final day of the workshop. Finally, we thank the participants for their engagement throughout the ten days.

Respectfully submitted,



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