ACBI Monitoring, Evaluation & Learning Bulletin Research Culture - Factors influencing PhD progress

- May 2022 -

The Royal Society-FCDO Africa Capacity Building Initiative (ACBI) aims to strengthen the research capacity of higher education and research institutions in sub-Saharan Africa by supporting the development of sustainable research and laboratory networks, increasing the number of PhD trained African researchers, improving the quality of research training and mentorship, and retaining these researchers in African institutions. The Centre for Capacity Research (CCR) at Liverpool School of Tropical Medicine, lead the monitoring, evaluation and learning (ME&L) component of the ACBI programme. The ME&L project aims to generate research-informed learning to improve ACBI within its lifetime and to contribute to the global pool of evidence on the science of research capacity strengthening.

Within ACBI 38 PhD students from 26 research institutions in sub-Saharan Africa were supported through paid PhD fees, stipends and research costs, with students selected on academic merit rather than financial resources. To better understand how programmes such as ACBI can influence the research environment and thereby support the students' progress and wellbeing, CCR used in-depth interviews and questionnaires to explore the enablers and challenges faced by the students in progressing their PhD research work.

Key benefits

Findings revealed that the majority of students felt privileged to belong to ACBI and recognised that being part of a prestigious international consortium was a great opportunity. They highlighted a number of benefits which fostered their research work and progress such as:

- **Timely flow and availability of stipends and research funds** through ACBI allowed students to concentrate on their PhD studies and prevented them from needing paid employment to fund their studies.
- Enhanced personal and professional development through:
 - Accessing a wide range of opportunities to participate in: research and generic skills' training/courses; national, regional and international conferences and scientific meetings; exchange visits to other research and academic institutions within Africa and the UK; and opportunities to travel and explore different cultures and to meet new people (e.g. researchers, experts and scientists from within and outside their research field). Courses included English language skills for Francophone students. A few students gained experience in framing policies and regulations. ACBI also enabled colleagues, students, and technicians not directly funded through the programme to benefit from the training opportunities.

"Also another benefit I've got is related to the fieldwork because it was for my first time to be involved in a fieldwork where you travel...it was an opportunity for me to go."

"my research skills have been built in a lot of ways, I have learnt new research methodologies, I have learnt new statistical approaches, I have learnt new laboratory techniques."

• Intensive mentoring and support from senior international researchers in all aspects of research and better access to research publications enabled students to gain an in-depth understanding of their research areas and therefore to produce high-quality outputs. Formal and informal mentorship from within the students' institutions and wider consortium provided a means to review students' written work and progress. Having mentors and supervisors who cared about the students' professional progress played a key role in motivating students, increasing their performance, self-confidence and overall wellbeing, and created a constructive research environment.

Types of formal and informal mentorship support provided by research leaders, post-doctoral researchers and peer PhD students

- Reviewing and providing feedback and guidance on student's scientific writing from an outside perspective
- Support in accessing library resources and providing useful resources
- Advice and one-to-one training on specific research topics including the use of specialised equipment
- Encouragement and moral support, and sharing personal experiences and difficulties
- Guidance on the overall research work and progress
- Advice on research opportunities and future career direction
- Increased support from peer PhD students within and beyond their own consortium included sharing and discussing solutions and good practices; learning about new research techniques; reviewing each other's work and advising on ways to improve.

Our group, I'll say, it's a rainbow...Different colours all matched together... so like everybody is from their discipline, but usually, even in the meetings you see that there's no difference between [us] despite the [specialised work] that they are doing"

Networking and establishing professional long-term partnerships that are useful for future academic collaborations (including from elsewhere in Africa). The ability to access world-class expertise was one of the most valuable benefits for almost all ACBI PhD students. This was achieved through various organised events at both the individual consortium and inter-consortia levels.

"The collaboration with the south-south has been really beneficial... We've been able to collaborate with each other, learn from each other and become inclusive with the research that we are doing, and even it's kind of built this solidarity amongst the [African] nations.... even amongst the students"

Challenges

Despite the benefits of belonging to ACBI, the students also raised some challenges. Some felt their lead supervisor **lacked experience or knowledge** in their research field which limited the quality of technical guidance and support they received. **Poor communication** and irregular follow-up left students feeling unsupported and slowed their progress. Some students reported having **several supervisors** which meant they had to manage discrepancies in opinions, reach consensus on ways to move forward, and **manage multiple feedback**. This was often challenging and could cause delays.

"The challenge is getting them. Sometimes you write, you remind them like five times, no one is responding. Of course, it discourages you."

"I have 6 supervisors... consulting with so many supervisors with different opinions gets me confused and sometimes delays my work progress"

Some students felt the **formal progress monitoring** process (which may include filling out regular progress forms/progress plans, sign off by the supervisor and submission to the postgraduate committee or graduate school) **not effective**.

Lack of technical support was reported as a challenge, in particular for students working on **multidisciplinary** research programmes who sometimes struggled to engage scientists or researchers from different yet relevant research fields.

Several students mentioned inadequate institutional research support such as:

- A lack (or poor quality) of basic analytical equipment, consumables and reagents and unreliable power supplies
- Limited research space and up-to-date resources (e.g. books, manuals, research articles)
- Slow transfer of funds and/or bureaucratic procurement processes which delayed deliveries of laboratory consumables and equipment
- Challenging fieldwork conditions affecting data collection, logistics and security, and shortened fieldwork duration due to the Ebola threat

Key messages

ACBI was able to plug some of the gaps PhD students experienced in **institutional research support** by, for example, providing **equipment and consumables**, and **training and networking opportunities**.

ACBI consortia created a **supportive academic environment and research culture** which was important for **motivating and supporting students** throughout their PhD journey.

Factors which helped create a **conducive research environment** for PhD students included:

- Making it clear what was expected of the students
- Open discussion about the challenges they faced
- Facilitating positive interactions and collaborations with students with peers, post-docs, and research support staff
- Access to mentors within and beyond their own consortium to guide their work and careers, and as an independent confidante with whom to discuss any challenges

Researcher Profile



Dr Taghreed El Hajj is a Post-Doctoral Research Associate. With Prof Imelda Bates she leads the Monitoring, Evaluation and Learning (ME&L) project within the African Capacity Building Initiative (ACBI). ME&L-ACBI generates research-informed learning about how consortia and programmes can maximise the effectiveness of research capacity strengthening activities.

About the Centre for Capacity Research

The Centre for Capacity Research specialises in the science of research capacity strengthening – a process of individual and institutional development leading to higher levels of skills and greater ability to perform useful research. The centre is a global leader in advancing evidence-informed capacity strengthening practice in low-and middle-income countries, through:

- Conducting high quality, implementation focused capacity strengthening research
- Fostering a global community of capacity strengthening scientists with equitable low- and middle-income country participation
- Sharing learning and advocating for evidence-informed capacity strengthening practice

The Centre for Capacity Research retains a broad interest in capacity strengthening initiatives of all types within a low- and middle-income country contexts, including a speciality in laboratory strengthening.

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