

Writing skills for peer reviewed journals

Regional skills workshop REPORT

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Munyonyo, Uganda



**Training and Research Support Centre
in the
Regional Network For Equity In Health In East and
Southern Africa (EQUINET)**

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1. Background

As part of its ongoing skills development programme, the Regional Network for Equity in Health in East and Southern Africa (EQUINET) has committed to developing the writing skills of health equity researchers in the region, particularly with regards to writing for peer reviewed journals, as well as for improving writing skills on EQUINET Discussion Papers.

This workshop took place as part of the post-conference activities of the EQUINET conference September 2009 on *Reclaiming the Resources for Health*. It was convened by Rebecca Pointer under the auspices of Training and Research Support Centre. The workshop used the EQUINET writing skills raining manual found as its core resource material (at <http://www.equinet africa.org/bibl/docs/EQ%20Writskill%20man.pdf>)

The workshop sought to equip researchers with a basic step-by-step approach to writing for peer reviewed journals, and to approach scientific writing as a routine process. The programme is shown in Appendix 1. The participants were those working on publications in areas related to health equity from countries in east and southern Africa and are shown in Appendix 1.

2. Welcome and introductions

Rebecca Pointer asked the participants to introduce themselves, by writing down some basic facts about themselves in full sentences, then swapping their sentences with a partner who read them out (see Participants List in *Appendix 2*). Participants wrote sentences to share their name, their place of birth, where they currently lived, where they currently worked and their favourite kind of music. Participants went on to share their expectations of the workshop, which were:

- improve existing writing skills;
- build skills to critique and edit colleagues' papers;
- fine tune thinking around papers that are already planned for publication;
- learn how to structure scientific writing;
- learn about grammar, sentence and paragraph structure; and
- develop writing for publication.

2.1 Purpose of the workshop

Rebecca explained that the motivation for the workshop was to strengthen African scientific publishing, as the bulk of research in health was published outside of Africa by non-African authors, and even scientific writing about Africa was often published by non-African authors. Therefore it is important for African researchers to build their writing capacity so that they may publish their scientific research.

The workshop aims to develop an approach to writing for peer review that will assist participants in developing a first draft of a paper intended for submission to a peer review journal. The one day workshop will be followed by email-based mentoring to develop papers and see them through to a final draft suitable for submission to a peer reviewed journal. Ongoing writing skills mentorship support will also be provided for researcher/writers on any health equity writing project they are undertaking. Rebecca explained that it would not be possible in one day for participants to have produced even a first draft of their paper, and that we would be pressed for time, so there would probably also not be time to complete all the activities. However, the

workshop aimed to equip participants with the skills and step-by-step process so that they could follow the process on their own, with mentoring support.

3. The link between research and writing

Rebecca explained the link between research and writing to building a house. When building a house, first you scope the land you choose the land you are going to build on (**choose your research project** based on a research question). After that you develop a plan for your house, just as you **plan your research** and put your plan in writing as a **research proposal**. When you start research, you **dig for information and data**, which is like digging the foundations for the house. Once you have completed research, you need to **analyse data** and then **develop a writing plan**, which forms the foundation of your writing; this is like building the foundations of the house. Putting up the walls of your house is like **writing the first draft**. You need to make sure you write **accessibly**, so that the reader can understand the writing and the research; this is like putting the doors and windows in your house. When you **edit your first draft** and **write the next draft**, this is like putting the roof onto your house. You need to write and edit **several drafts**, before you finalise your writing. **Preparing your document to submit** to a peer review journal puts the finishing touches on your writing, which is like painting the house, putting down the flooring and installing all the fittings. **Submitting to a journal** and **receiving a positive response** is the cherry on top, like putting a chimney in the house. Once your **paper is published**, you can live in the house!

A figure explaining the link between research and writing is on *page 7* of the manual at <http://www.equinet africa.org/bibl/docs/EQ%20Writskill%20man.pdf>)

4. Developing a key message

Rebecca explained that after you have completed and analysed your research, and before you begin to write it is important to determine what you are going to write about. Your research write up will answer the **key research question**. If there was more than one key question, you need to choose just one to answer for your journal article, as a journal article is only about 3000 words long, so you only have space to answer one question per article. Multiple research questions can be written as multiple journal articles, each answering a different research question.

Participants wrote down their key research question and then working with a partner, wrote one sentence of less than 30 words to answer the key question. This answer to the key question was called the **key message**, and that it was important to determine your key message before beginning to write. Too many writers proceed without first deciding their key message and therefore their writing lacks structure and lacks a core argument. The key message helps to focus a piece of writing.

After working on their key messages, participants reported back to the plenary that it takes time to come formulate a key message. It sounds like a straight forward activity, but the activity really forced them to get clear about what they want to write about, and this wasn't so easy. They realised that deciding on the key message means you have to make a **choice** about what you will **focus** on. The key message must provide specific context but also emphasise the **main finding** of the research. Rebecca emphasised that participants should continue to work on their key message after the workshop to develop one that they were totally happy with.

5. The methodology: The story of your research

In a plenary session participants brainstormed the key questions about the research:

- Why did you do the study?
- Where did you do the study?
- What did you do, e.g. focus groups discussions, literature review, questionnaires etc.?
- Who did the research?
- Who participated in the study (e.g. interviewees, questionnaires)?
- How did you analyse the information gathered?
- When did you do the research?
- What were the limitations of the study?
- What ethical clearance did you get?

Participants then went into groups, and each person had 15 minutes to tell the story of their research, answering the above questions. Other participants in the groups asked questions for clarification and to provide further details on the research, which were noted by the individuals presenting. Groups checked that each participant had covered all the questions and that the methodology was clear. Participants were then told to write up the activity for the methodology section of their paper after the workshop. Rebecca highlighted that the methodology is the story of your research, and should be 3–4 paragraphs long, in most instances unless a complex methodology was used.

6. Writing the results

6.1 Brainstorming

Rebecca noted that the brainstorming activity would normally be done at the beginning before deciding on the key message, and in the brainstorm normally you would note every idea and fact related to the research. In this brainstorm though, participants focussed on brainstorming the results of their research, using the brainstorm activity in the manual.

6.2 Ranking and scoring

After half-an-hour, participants were asked to rank (group) their results into different sections and then arrange these sections in order, from most to least important. Rebecca explained that the demographic findings were written first, and then the rest of the findings/ results in the order arranged in the sections. It is important that the findings are arranged in a logical order from most to least important, so that it was easy to read, and easy for the reader to follow the logic. Also, if the paper is too long, it is easy to remove the least important findings if they are at the end of the section.

Results and findings can be presented in tables and figures, but an explanatory sentence or two should always precede any table or figure. The explanatory sentence should point to some interesting details in the table or figure, or explain how the table or figure should be read. It was explained that authors should not repeat information from the table or figure in the paragraph before.

7. Writing the discussion

In a plenary session, participants brainstormed what should go in the discussion section of a scientific paper as follows:

- explore explanations for findings;
- compare and contrast your results with other similar studies;
- reflect on whether the objectives were achieved; and
- bring together the objectives, findings, literature review/ theory and the results.

The facilitator explained that in scientific writing, while you need to be objective, the discussion section is where you should give your own opinion, explain what you think the implications of your findings are, and give judgements on the relevance of the findings. While these are subjective, they should be based on the evidence. She said that the best way to structure the section was to think about and answer the question: 'Were your results surprising?'

From there writers should go on to say what was or was not surprising and why it was or was not surprising. For example, if the results were surprising what surprised you about the results — were they a radical departure from previous studies in this area? If you were not surprised, why are you not surprised — did the results confirm previous studies? In answering these questions, writers should cite the relevant studies, but should NOT provide long quotes from other authors. Only select a few choice quotes that succinctly express a point you want to confirm or challenge. For example:

Janes (2001) in BBB Province found that xxxxxxxxx and xxxxx, but in our study in CCC district, we found xxxxxxx xxx. This possibly points to regional differences in xxxxx xxxxxx.

Rebecca explained that differences between and/or similarities to your own research and studies published by others could be in terms of place, timeframe (length of study), time study was done, size of the sample, different subjects, different conceptual frameworks, different methodology used. These differences and similarities should be explored in the discussion section.

There are three main reasons why the results might not be surprising, as follows:

- the study was following up on research done earlier;
- the study was undertaken in a different place to where previous studies have been done, but has similar results;
- the study is adding to growing evidence.

In answering the question, you can speculate about why you got the results that you got.

8. Writing the conclusion

Participants said that the conclusion should contain final thoughts, recommendations, and be a take home message. Rebecca said that the conclusion should be action oriented answer to the key question. As it is the last thing the reader will read, it should be strong; Participants were encouraged to take a strong stand in their conclusion. The point of research for everyone in EQUINET is to bring about social change — the conclusion should strongly point to what change is needed.

Participants broke into pairs and with their partners, and with input from the facilitator worked on developing the main sentence of their conclusion, by answering the key question and point to actions that the research points to and changes that are

needed. In a plenary, participants then reviewed the conclusions that partners had written and critiqued them, suggesting improvements.

9. Developing an introduction

Rebecca handed out introduction to three articles on health equity in different journals. Participants broke into groups and read the three introductions, then decided as a group which introduction they thought was the best and which one they thought the worst, explaining their answers. Participants came back to the plenary and identified factors that make a good introduction, including that introductions should:

- be clear and succinct;
- be focussed on relevant information;
- include a statement of the problem the research is tackling;
- explain the aims of the research;
- explain why the research has been done and why it is important;
- explain the context of the research;
- define key terms;
- give a perspective on the problem or topic;
- explain the structure of the paper.

Rebecca added that the introduction should not use hackneyed phrases and should not refer to general information that is already widely known. She emphasised that from the first sentence, the introduction should grab the readers' attention, by saying something about the research that is unique/ special.

Rebecca explained that the introduction should always be written last as it should explain what is in the paper, and you will only know that when the rest of the paper is written.

10. Abstracts and executive summaries

Rebecca explained that abstracts could be either structured or unstructured — a structured abstract has headings and an unstructured one does not. Each journal has its own abstract style and this needs to be checked before you submit your article. An abstract should be no more than 250 words. Even if there are not headings, the abstract should be written with structure, as follows: Aims; Methods; Key findings; Conclusion.

An executive summary is never included in a journal article, but if your scientific writing is for an occasional paper, for example, you would include an executive summary, as for example, an EQUINET paper. The executive summary should be a maximum of 600 words and should give the same information in the same order as for an abstract, but should go into a bit more detail.

11. Grammar

11.1 Sentence structure

Participants were directed to the examples on sentence structure in the manual. Participants practiced a few examples, correcting poor sentence structure in the journal articles handed out.

11.2 Paragraph structure

Participants went through the examples in the manual with the facilitator.

12. Summary

The workshop had attempted to teach a writing **process**, as follows:

- i. Brainstorm all ideas and facts emerging from your research.
- ii. Develop a key message that answers the research question.
- iii. Rank (sort) all ideas and facts into the different sections and subsections
- iv. Within the subsections score the ideas and facts and arrange from most important to least important. This will give you the structure for your article.
- v. For the methodology, tell the story of your research, answering the questions Who?, What?, Where?, When?, and How?
- vi. For the Results/Findings section, put demographic information first, and then explain in order from most important to least important, making logical links between the different findings. Include tables, figures or quotes from your subjects to add interest to the section.
- vii. For the discussion section, answer the question: 'Were your results surprising?', and explain why or why not?
- viii. For the conclusion, develop an action-oriented **strong** sentence that links the key finding to changes you want to see as a result of the research.
- ix. Develop the introduction AFTER you have written the rest of your paper.
- x. Prepare the abstract.
- xi. Check grammar.

13. Evaluation

13.1 Overall

All participants (10) said the course was relevant to their work and role. Most of the participants (9) said the course was very useful, while the other (1) said it was useful. According to all participants (10) the trainer was very good, and most (8) said the materials were very good, while the others (2) said they were good. Suggested improvements were for a longer course with more time and for there to be more than one facilitator. Given that the workshop was only one day, participants felt that the topics covered were appropriate, but one (1) suggested that there should be a specific focus on how to write up a literature review, and one (1) said if there was more time the practical sessions would have been better. Some participants (3) were very confident that they would be able to publish their research in the next six months, while the remainder (7) were confident, with one indicating that the six month time frame was perhaps a little short as they were still busy finalising their research, while three (3) others indicated that they had a paper in the pipeline. One participant said:

The course has given me more assistance and skills that will enable me to organise and publish the data I have collected.

Another said:

I have been directed and feeling fired up to use this important knowledge to advance learning.

One of the very confident participants said:

Training has simplified my approach to writing so I hope to apply the skills and produce my draft faster.

13.2 Comprehension

Most (6) participants said they understand most of the section on the link between research and writing, while four (4) said they understood all of it. The section on key messages was completely understood by seven (7) participants and partly understood by three (3) participants. Eight (8) participants understood the entire section on 'the story of your research' and the section on brainstorming, while two (2) partly understood these sections. Compared with the previous workshop where most participants only partly understood the session on ranking and scoring, most participants (7) understood all of it, while three (3) partly understood. Half (5) of the participants understood the whole discussion and conclusion sections, and the other half (5) said they partly understood these sections. Most (6) participants understood the whole introduction section, and the others (4) partly understood it. The section on abstracts and executive summaries was partly understood by half (5) the participants, while four (4) understood it completely and one (1) did not answer this question.

13.2 Relevance

Most participants (7) found all sections relevant and useful, one (1) did not answer these questions on the evaluation sheet. The two (2) other participants found most sections to be relevant and useful, while one said the section on grammar was only 'somewhat useful', and the other said the section on brainstorming and the section on abstracts and executive summaries were 'somewhat useful'.

13.3 Types of activities

All (10) participants found the manual to be clear and useful. Most participants (6) found all types of activities useful. One (1) found group work to be only partly clear and useful; one (1) found pair work only partly clear and useful; one (1) found individual work only partly clear and useful; and one said mentoring from the facilitator was only partly clear and useful.

Appendix 1: Programme

EQUINET writing skills workshop

Speke Conference Centre, Munyonyo
26 September 2009



Session 1: Preparing to write		
8.00	Registration	
8.30	Introductions	Writing activity; plenary report back
8.45	Purpose of workshop	Plenary presentation
9.00	Link between research and writing	Plenary discussion
9.30	Key message	Pair work
Session 2: Writing your first draft		
10.00	Methodology: The story of your research	Group work
10.45	TEA	
11.00	Results: Brainstorming	Individual work
11.30	Results: Ranking and scoring	Plenary presentation
12.00	Discussion: Opinions and evidence	Plenary presentation; individual work
13.00	LUNCH	
14.00	The conclusion: Answering the key question	Group work; plenary report back
14.45	The conclusion: Recommendations	Plenary presentation
15.00	TEA	
15.15	The introduction: Comparative exercise	Group work; plenary report back
Session 3: Finishing and polishing		
16.00	Abstracts and executive summaries	Plenary presentation
16.20	Grammar: sentence structure; passive voice	Plenary discussion
17.00	Paragraph structure	Plenary presentation
Session 4: Summary and evaluation		
17.30	Summary of writing process; question time	Plenary discussion
18.00	Evaluation: forms	Individual activity

Appendix 2: Participants' list

Last name	First name	Country	E-mail	Organisation
Dulo	Charles	Kenya	charlesdulo@yahoo.co.uk	Mustang Management Consultants
Kamuzora	Peter	Tanzania	petkamu@udsm.ac.tz ; c.lwegalurlila@yahoo.com	Institute of Development Studies, University of Dar Es Salaam
Kanyamurwa	John Mary	Uganda	jmk@masscom.mak.ac.ug	Makerere University
Mathias	Mulumba	Uganda	mulumba22@gmail.com	Parliament of Uganda MDG Forum
Mulumba	Moses	Uganda	mulumba_moses@yahoo.com	Uganda Health Equity Network HEPS-Uganda
Okoronkwo	Ijeoma	Nigeria	ijayokoronkwo@yahoo.com ; ma.okoronkwo@unn.edu.ng	University of Nigeria
Munsanje	Joseph	Zambia	jmunsanje@sightsavers.org	Sightsavers International
Opwora	Anthony	Kenya	aopwora@nairobi.kemri-wellcome.org	Kenya Medical Research Institute -Wellcome Trust Programme
Phiri	Benson	Malawi	benesphiri@yahoo.co.uk	National Organisation Of Nurses And Midwives Of Malawi
Amunyunzu-Nyamongo	Mary	Kenya	mnyamongo@aihdint.org ; manyamongo@yahoo.com	African Institute for Health and Development
Pointer	Rebecca	South Africa	rebecca@tarsc.org	Training and Research Support Centre
Shamu	Shepherd	Zimbabwe	shamushe@yahoo.com ; shepherdshamu@hotmail.com	Training and Research Support Centre
Tutembe	Patrick	Uganda	tutembepatrick@yahoo.com	HealthNet Consult