Writing about equity in health in east and southern Africa: A writing skills manual

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Training and Research Support Centre
In the
Regional Network on Equity in Health in East and Southern Africa

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This manual was developed through the EQUINET secretariat at TARSC in consultation with the EQUINET steering committee, whose input is gratefully acknowledged. It has been developed to strengthen the publication of EQUINET work on equity in health in east and southern Africa. This edition focuses on scientific papers and scientific reports. In future editions it is planned that modules will be added to support writing for policy briefs, briefings and other forms of publication. The manual was field tested and revised based on delegate feedback from the EQUINET / TARSC workshop held in Lilongwe, Malawi, October 2007, co-hosted with REACH Trust Malawi. The manual was peer reviewed by Professor Malcolm Molyneux and Margo Bedingfield who are thanked for their inputs.

EQUINET welcomes feedback from people using this manual. This feedback will be used in revisions in further editions. Please feedback to admin@equinetafrica.org

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Introduction:
Writing skills

1. Background

The Regional Network on Equity in Health in East and Southern Africa (EQUINET) (www.equinetafrica.org) is a network of professionals, civil society members, policy makers, state officials and others within the region who have come together as an equity catalyst, to promote and realise shared values of equity and social justice in health. EQUINET networks people to overcome isolation, give voice and promote exchange and co-operation using bottom-up approaches built on shared values. In a spirit of self-determination and collective self-reliance, EQUINET works through existing government, civil society, research and other mechanisms and institutions in East and Southern Africa. Several thousand people have been involved in EQUINET training, research, policy dialogue and information activities over the past seven years. The network fosters forums for dialogue, learning, sharing of information and experience, and critical analysis.

This work aims to build knowledge and perspectives, shape effective strategies and to strengthen our voice, nationally, regionally and globally and our strategic alliances to influence policy, politics and practice towards health equity and social justice. The network website provides information on the activities. EQUINET produces, with technical support from its secretariat, a monthly newsletter and a searchable web database with information and publications on equity in health in East and Southern Africa. In 2007 the EQUINET Steering Committee produced a synthesis of the work of the network in a regional analysis of equity in health in east and southern Africa *Reclaiming the Resources for Health: A regional analysis of equity in health in east and southern Africa* (EQUINET SC, 2007).

> *"Equity in health implies addressing differences in health status that are unnecessary, avoidable and unfair. Equity-motivated interventions seek to allocate resources preferentially to those with the lowest health status. This means understanding and influencing the redistribution of social and economic resources for equity-oriented interventions, and understanding and informing the power and ability people (and social groups) have to make choices over health inputs and to use these choices towards better health."*
>
> (EQUINET steering committee, 1998)

When we talk about equity in health care and equitable health systems, we are also talking about equitable access to information. This calls for our writing to be understandable to as wide an audience as possible, within the constraints of the intended final product, and published in ways that reach as many people as possible. This manual is intended to help writers develop skills for this. It complements EQUINET capacity and skills building in other areas. Although it is specifically geared towards people in east and southern Africa, it addresses issues common to **all** writers of scientific papers, wherever they are in the world. Common errors dog academic writing globally, not just in Africa.

Many African researchers battle to get their research published in international journals because of inadequate presentation. This is problematic as Northern researchers writing about Africa succeed where African researchers fail, and thus voices from the region are not heard. As explained by Smith Esseh (2007): '*Africa is the second-largest continent, and has over 900 million people, and therefore should be a world leader in global scholarship. In 1960-1979, scholarly publishing began to rise in Africa, a result of gains in social and political independence. However, in 1980-1985 scholarly publishing plateaued. From 1986 to now, scholarly publishing in Africa has been declining steadily*.' According to the Global Forum for Health Research (no date):

> *"In 1990, the Commission on Health Research for Development estimated that less than 10% of the global health research resources (totalling US$30 billion/year in 1986) were being applied to the health problems of developing countries, which accounted for over 90% of the world's health problems – an imbalance subsequently captured in the term the '10/90 gap".*

This imbalance in research resources is made worse by barriers in accessing and publishing information in the continent. Inadequate access to information is a significant barrier to health care development, and inequalities in access to health information in Africa, and especially at the primary and district levels of health systems undermines self driven advances in health *(*Couper and Worley, 2006). This calls for investment to strengthen African research capacities and African researchers voice in international journals (Global Forum for Health Research, 2004). Effective communication of work on health equity enables peer review of the work, exchange of useful experience and scientific findings, communication with parliamentarians and civil society and wider report back on the work. While EQUINET has invested in improving skills for working with stakeholders to identify research agendas, for research design and implementation, all of these tasks also depend on improved writing skills.

EQUINET held its first training workshop on writing skills in June 2004 with University of New South Wales, Sydney, Australia. This workshop built skills for researchers to write for peer-reviewed journals. Mentoring and formal writing skills training has since been provided in all areas of EQUINET work, together with technical and language edit of research publications produced in the network and the authors of this manual have drawn on their skills and work in EQUINET for its content[1]. The manual thus consolidated experience and work over more than four years. The first edition was piloted at a writing skills workshop in Lilongwe, Malawi from 20-24 October 2007 and feedback from participants (see list below) and from two peer reviewers (Professor Malcolm Molyneux and Margo Bedingfield) used to revise the manual to its current form.

Participants to the pilot writing skills workshop

NAME	INSTITUTION
Aulline Mabika	SEATINI, Zimbabwe
Bona Chitah	Economics Department, University of Zambia, Zambia
Caleb J Othieno	Department of Psychiatry, School of Medicine, University of Nairobi. Kenya
Elijah Chiwota	MWENGO, Zimbabwe
Eunice Kyomugisha	Makerere University School of Public Health, Uganda
Mutumba Abrahams Zahura	HEPS Secretariat, Uganda
Pastor Jacob Ongala Owiti	Victory Fellowship Center - Church Office, Kenya
Shepherd Shamu	Zimbabwe Economic Policy Analysis and Research Unit, Zimbabwe
Kathe Hofnie-Hoëbes	School of Nursing, University of Namibia
Mulumba Moses	Kasimbazi and Company Advocates, Uganda
Grace Bongololo	REACH Trust, Malawi
Paul Kawale	Malawi Health Equity Network, Malawi
Fortunate Machingura	TARSC, Zimbabwe
Barbara Kaim	TARSC, Zimbabwe
Lincoln Khasakhala	Africa Mental Health Foundation (AMHF), Kenya
Amon Mpofu	National AIDS Council, Zimbabwe
Enna Gudhlunga	Zimbabwe Open University
Therese Boulle	Nelson Mandela Metropolitan University, South Africa
Albert Makone	Community Working Group On Health, Zimbabwe
Thomas Deve	MWENGO, Zimbabwe

2. Purpose and structure of manual

The manual is intended for use by researchers in preparing papers, in writer's training workshops; and will be updated in later editions with additional areas of writing skills. This edition of the manual is a guide to producing scientific reports, peer-reviewed articles, EQUINET policy and discussion papers, briefs and reports. It is intended for those involved in EQUINET programmes to

[1] Rebecca Pointer holds a Bachelor of Journalism (Hons) from Rhodes University, is a published poet and fiction author, has worked with publications in the non-governmental organisation (NGO) sector since 1995, and with the EQUINET secretariat at TARSC since 2004. Pierre Norden holds a Bachelor of Arts in English literature, has taught English to adult learners (TEFL), is a published fiction writer and has edited EQUINET papers since 2004. Dr Rene Loewenson is EQUINET programme manager, has published extensively in books and peer reviewed journals and has been series editor of EQUINET publications since 1998.

- prepare papers for publication in EQUINET papers and in peer-reviewed, scientific journals;
- communicate work on health equity;
- understand and work with peer review processes; and
- improve writing skills generally, including for meeting reports.

Other modules will be added at a later stage to guide other forms of writing currently undertaken in the network, such as policy briefs, editorials, press releases and parliamentary briefs.

The manual is structured as follows:

- Module 1: Preparing to write
- Module 2: Writing scientific papers
- Module 3: Computer skills to aid writing
- Module 4: Getting feedback and revising your drafts
- Module 5: Publishing in peer-reviewed journals
- Module 6: Writing an EQUINET paper
- Module 7: Writing an EQUINET meeting report

The manual takes participants through the writing process from:

- developing a key message and planning the structure of writing
- writing the specific sections of scientific papers such as the title, abstract, keywords, executive summary, introduction, methodology, results and discussion, conclusions and references;
- getting feedback and revising drafts; and
- getting published.

As the manual shows, writing is a cumulative process, with writers developing many drafts then incorporating feedback and using computer skills to refine the presentation of any paper (see *Modules 3* and *4*). The first four modules take writers step-by-step through writing scientific papers and submitting them for publication. We recommend that writers work through each of the first three modules *before* they begin to write and complete each step before proceeding to the next module. Once writing is ready for submission to a publisher, there is a submission process, followed by the peer review process; in *Module 5*, we outline these processes and guide writers through them. Modules *6* and *7* give stylistic guidance for authors on EQUINET documents.

Suggested reading

1. Smith Esseh S (2007) 'Strengthening African Research Culture and Capacities Project,' *PKP Scholarly Publishing Conference Blog, Vancouver, Canada, 11-13 July 2007* (12 July 2007), accessed on 28 September 2007 at: http://scholarlypublishing.blogspot.com/2007/07/strengthening-african-research-culture.html
2. Couper I and Worley PS (2006) 'Editorial: Health and information in Africa: The role of the journal *Rural and Remote Health*,' *Rural and Remote Health* 6 (online): 644, accessed on 1 October 2007 at: http://www.rrh.org.au/articles/subviewafro.asp?ArticleID=644
3. Day RA and Gastel B (2006) *How to Write and Publish a Scientific Paper*. Greenwood Press: Portsmouth, New Hampshire, USA.
4. EQUINET Steering Committee (1998) 'Equity in health southern Africa: Overview and issues from an annotated bibliography', *EQUINET policy paper 2*. EQUINET: Harare, available at: http://www.equinetafrica.org/bibl/docs/POL2EQUequity.pdf
5. Global Forum for Health Research (no date) 'The 10/90 gap: Now,' Global Forum for Health Research: Helping to correct the 10/90 gap, accessed on 28 September 2007 at: http://www.globalforumhealth.org/Site/003__The%2010%2090%20gap/001__Now.php
6. Global Forum for Health Research (2004) 'Executive summary,' 10/90 Report on Health Research 2003-2004. Global Forum for Health Research: Geneva, accessed on 28 September 2007 at: http://www.globalforumhealth.org/filesupld/1090_report_03_04/109004exec_summ.pdf
7. Goodman NW, Edwards NB, Black A (1997) *Medical Writing – A Prescription For Clarity*. Cambridge University Press: Cambridge University.
8. Peat J, Elliott E, Baur L and Keena V (2002) *Scientific Writing: Easy When You Know How*. British Medical Journal Books: London.

Module 1:
Preparing to write

1. Overview

This module will show you how to **prepare** to write. These preparations are applicable to all texts you might want to write. We will also explain the links between research and writing: most writing (even creative writing) requires research, but in this manual we will focus on the links between formal research and research writing. As you work through the exercises in this module, you will develop a plan to guide your own writing project.

Outcomes

When you have worked through this module, you should:

- understand the links between formal research and research writing;
- have developed your key message; and
- have structured your main ideas to create a writing plan.

2. The link between research and writing

The purpose of research is 'knowledge production'. Health research seeks to understand the distribution and determinants of priority health problems, and examine the effectiveness of the interventions to address them. Beyond biomedical and epidemiological research approaches, it draws on policy analysis and social science research methods that examine the upstream, structural determinants of heath. Research writing seeks to share the methods used and knowledge gained. It thus involves explaining:

- the research process; and
- the knowledge found during the research process.

Setting the research agenda is not simply a technical process. It draws on political and policy choices that are influenced by different social and interest groups that researchers interact with. We explore this further in other EQUINET publications. Before researching it is important to read background materials, what other people have written about the problem and the knowledge generated in prior work. In *Section 4* we point to a brainstorming process that helps to think through the ideas that you want to communicate. This process can also be useful in thinking through your research problem, and how to focus the questions you are asking.

The agenda leads to identification of knowledge gaps or ideas that become the focus of investigation, known in formal research as the 'problem statement'. The problem statement is usually structured in the form of a question or hypothesis that describes the specific knowledge gap that the research aims to address. After the problem statement has been developed, a research plan is made, explaining how the research will be done; this is called the 'research design'. Once the research design has been completed, piloted and revised, the research is undertaken. During the research process, the aim is to gather data in order to answer the problem statement. The last step in the research process, after gathering data, is analysing the data. Analysing the data includes:

- sorting the data (both statistical and non-statistical data);
- generating relevant statistics; and
- reflecting on themes emerging from non-statistical data such as group discussions and key informant interviews.

There are also participatory research processes, which use collective validation of community experience as the basis for new knowledge, and thus build new knowledge within the process of reflection and analysis of this experience with communities affected.

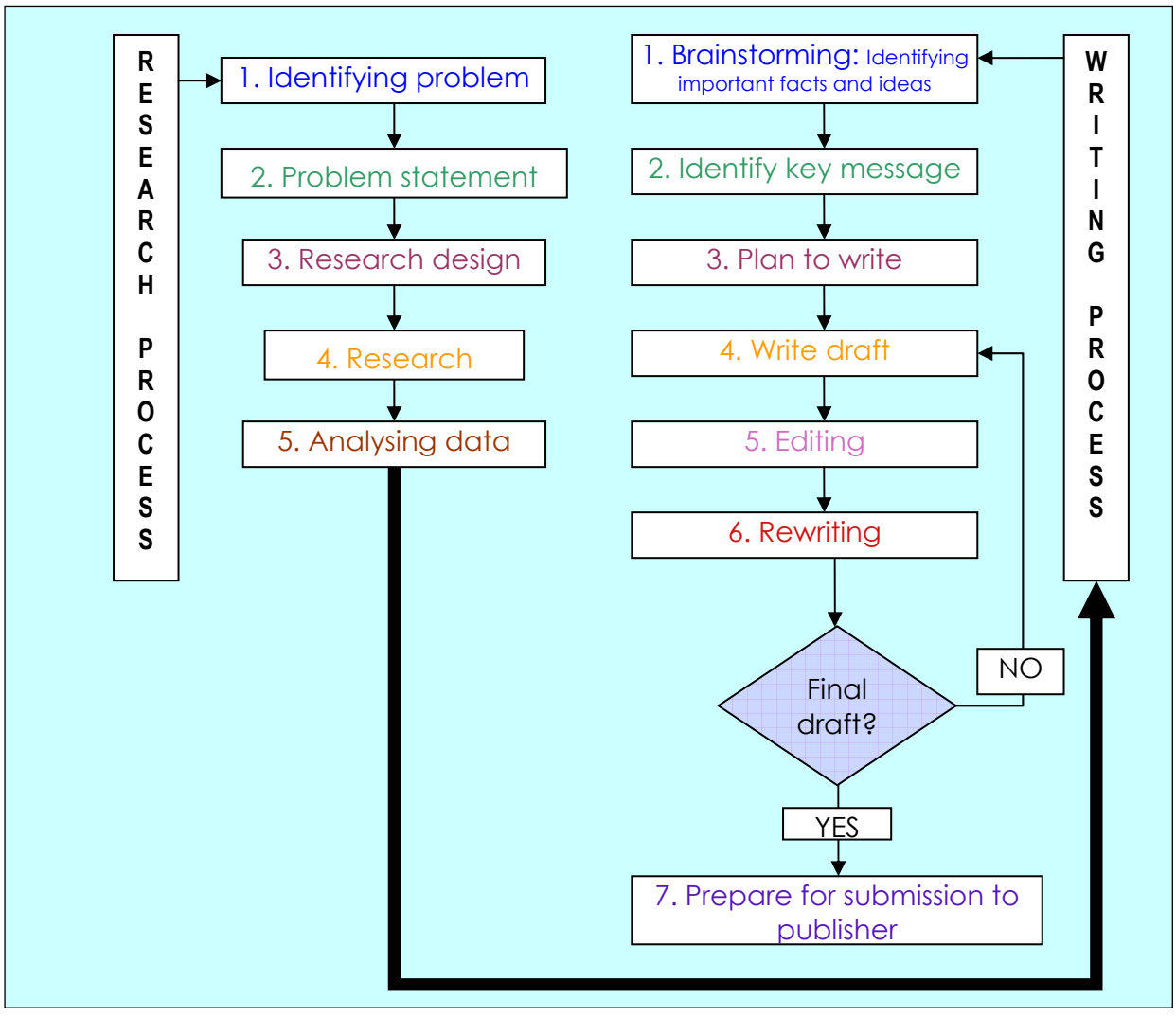
Whatever the process, writing about research depends on completing the processes of generating and collecting the evidence, as you will only be in a position to answer the problem statement when synthesis and analysis of evidence is complete.

Just as the problem statement is stated in one sentence, in your research writing, you should aim to answer the question in one sentence. This one sentence answer is the 'key message' you will communicate to your readers. It is important to decide the key message **before** you begin writing, as the writing should be structured around the key message.

The key message should make clear whether researchers found what they thought they would find or not. If no answer was found to the 'problem statement' in the research process, researchers would have to decide on a new key message, probably explaining why the research has not answered the 'problem statement'.

In this module, we will help you develop your key message, and use that as the basis for the rest of your writing. Once you have developed your key message, your writing should focus on giving more detail on the key message, explaining how you arrived at that answer and why the answer is valid. This will be discussed in more detail in *Module 2*. The links between research and writing are further illustrated in *Figure 1*.

Figure 1: The link between the research process and writing a research article



Research processes generate different types of evidence. This manual does not explain research processes. However it does seek to show how to communicate the quantitative evidence drawn from surveys, clinical trials and other quantitative designs, as well as the qualitative evidence from focus groups, interviews, participatory processes and other qualitative methods. Quantitative data involves graphs, tables and figures while qualitative data may involve quotes and graphics. We look further at how to communicate the different forms of evidence in *Module 2*.

3. Accessible writing

We begin by reflecting on why a key message is important. The next activity helps you think about the aims of writing your research project. It is a group activity, but you can also do it on your own.

Exercise 1.1

20 minutes
Group activity
Items needed for exercise: newsprint and marker pens

Choose someone to write notes on newsprint and someone to report back. Discuss the following questions:

- Why do you want to write?
- What is accessible writing? Why is it important?
- What makes writing more accessible? What makes it less accessible? Give some examples.
- What does this mean for what you need to think about in your own writing?

When you write, ask yourself: 'What is my main purpose?'

The two basic purposes of writing are to:

- communicate; and
- keep records.

As discussed in the introduction, equitable access to information means making your writing understandable to as wide an audience as possible, within the constraints of the intended final product. For this you must consider the readers' needs. You need to be clear, so that they can understand what you are saying. From the first sentence, the reader should be able to understand the main point of your writing, so they can decide if this is something they are interested in reading.

From the first sentence on, your reader will be trying to understand the key points of your argument. It is thus critical to develop your key message, to communicate this to the reader from the outset. Your key points need to be organised and structured logically around this key message. Later in this module, we will look at how to develop, organise and structure your writing. But the first step is to develop your key message.

Convey a clear message so that you don't confuse the reader.

4. Developing your key message

Developing your key message is the most important step in the writing process. Given its importance, it is surprising that many research writers leave out this important step. The key message helps you, the writer, to organise and focus your thoughts. Organised and focussed thinking helps a writer to write well. Good writing communicates effectively with the reader.

Without a properly developed key message, writing lacks focus.

Writing is a two-fold process: it is a **creative** process and it is a **systematic** process. Opening your mind for creativity is the first step in the writing process. Take a moment to think about the word 'creativity'. In your research process you have already 'created' knowledge; in the writing process your job is to create writing that communicates your knowledge effectively. Therefore, even academic research writing is a creative process. Although, by the end of your writing process, you must have a structured piece of writing that is accessible to the reader, the first step in the creative process is to free your mind and let go of the need to structure your thoughts. A good way to get into the creative process for research writing is to 'brainstorm'. The next activity will help you get your creative juices flowing:

Exercise 1.2*

⏲ 1.5 hours

Individual, pair and group work

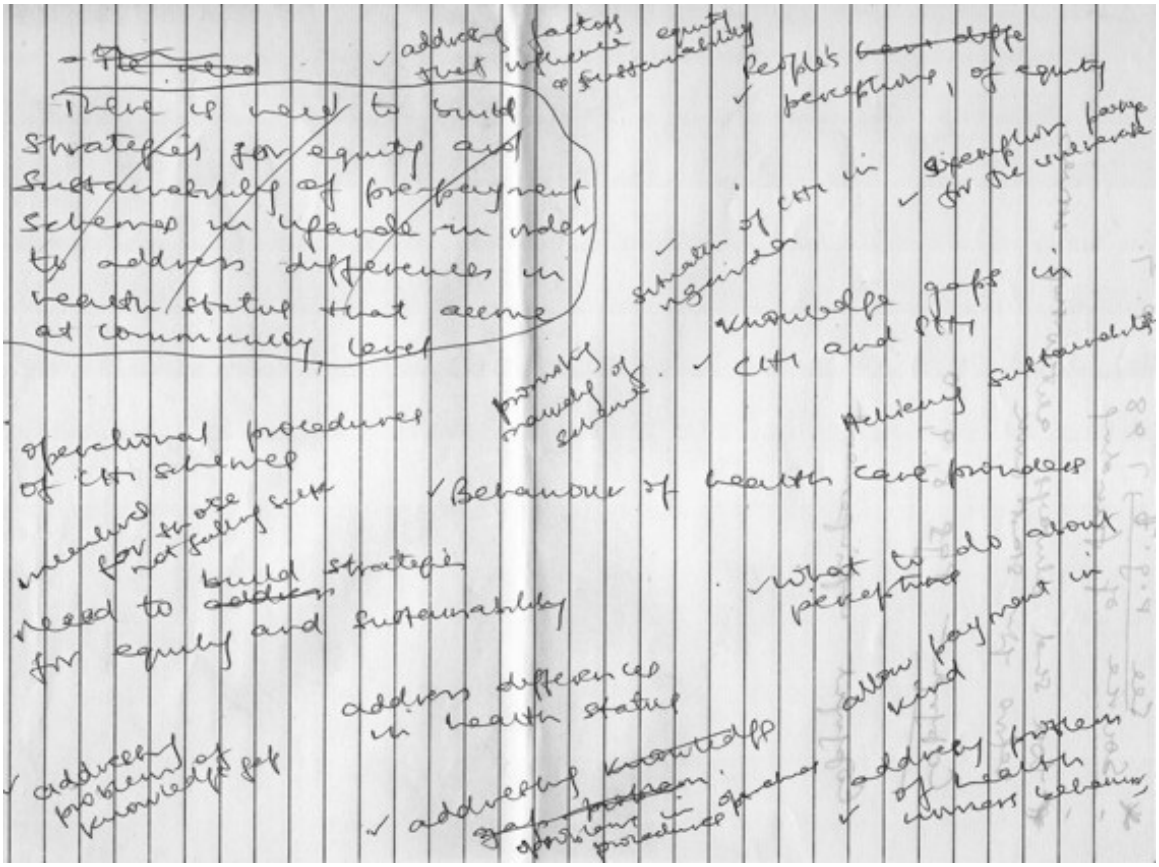
Items needed for exercise: pen and paper

Reflect on your research project and then:

1. **Individual activity:** Write down the five top points you want to write about in communicating your research. Write each idea on a separate line. Do this quickly (in two minutes), without censoring your thought process.

2. Partner work: Now share your five ideas with your partner and ask them which idea they think most interesting (one minute for each partner).

3. Individual activity: Now write the idea chosen by your partner in the middle of a blank page, and then in free form around the central point, write down any other related ideas that you think are important to get across in writing up your research. Do not write in an orderly way, but turn your paper around and write the ideas down randomly and scattered around the page. It is better for creativity if you allow this to be a messy process (as below). Do not think too critically about what you are writing; try to write down everything around the topic that comes into your mind (10 minutes).



4. **Partner work:** Now, working with your partner, write, in one sentence, a key message that adequately covers and summarises the main ideas emerging from your brainstorm session. The sentence should be at most 30 words long, it should be clear for any person to understand, and it should be well structured. The sentence should also communicate a strong idea, without unnecessary words (3 minutes for each partner). Think about: What is new, exciting or striking about the information? What do you want to change with your writing?

5. **Group work:** Now break into groups of four or five people and share your key messages. Note down any questions that group participants ask about your key message. You may need to clarify your key message further; get all the help you can from your group members to ensure that the message is as clear and succinct as possible.

***NOTE:** *If you are not doing this activity as part of a workshop, ask a colleague or fellow student to work with you on the pair activities, and ask a group of colleagues or fellow students to help you refine your key message as per step 6 above.*

5. Planning and preparation

5.1 Why do you need a writing plan?

A lot of your preparation for writing will take the form of **thinking about how you will write**. As we noted above in the section on accessible writing, many authors do not form a clear picture of whom they are writing for (their audience). In addition, they may fail to identify the key messages in their writing (their writing lacks focus). How do you think these two basic errors will affect the reader?

Planning is an opportunity for you to think about how research and writing fits into the 'big picture' (general context). You should have a good idea of what you're going to write and how you're going to present your information **before** you start writing.

Skipping the planning step can lead to avoidable mistakes.

In the next exercise, you will reflect on your writing goal, so that you can write with more focus.

Exercise 1.3

10 minutes
Individual activity
Items needed for exercise: pen and paper

Reflect on the aims of your writing project, and then answer the following questions:

1. What is your planned final product, e.g. journal article, policy brief or a poster?
2. Who is your target audience? Describe them.
3. What is the purpose of the publication, e.g. to share information with peers, to lobby policy makers or to give facts to community activists?

When you have completed the exercise, you should have some useful notes to help you keep the 'big picture' in mind as you write. During the writing process, you may develop 'writer's block' (when you cannot write at all), become lost in the details of the writing (and lose the bigger picture) or simply lose the thread (main argument) of what you want to say. You can refer to your notes to help you to overcome these writing obstacles.

5.2 Brainstorming ideas and facts to support your key message

Now that you have planned for the 'big picture', it is time to move on to the second step in planning – brainstorming any other ideas and organising your ideas around your key message. These ideas will support your key message. The key message is the foundation on which you will build the rest

of your writing project. Remember that your writing should develop an argument (a claim that is based on facts), and you should use interpretation and analysis to support your key message.

A mind map is a very useful way to organise your thoughts and ideas to support the key message. A mind map gives a loose structure to your ideas; it gives you the opportunity to brainstorm further about any further facts and ideas that support your key message. Referring back to your existing brainstorm notes, in the next activity, you will develop a mind map for your writing project.

Exercise 1.4

1 hour

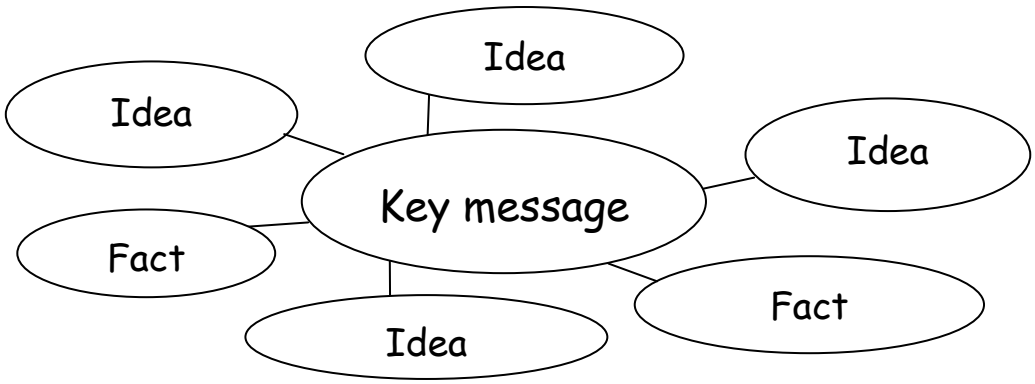
Individual activity

Items needed for exercise: newsprint and marker pens

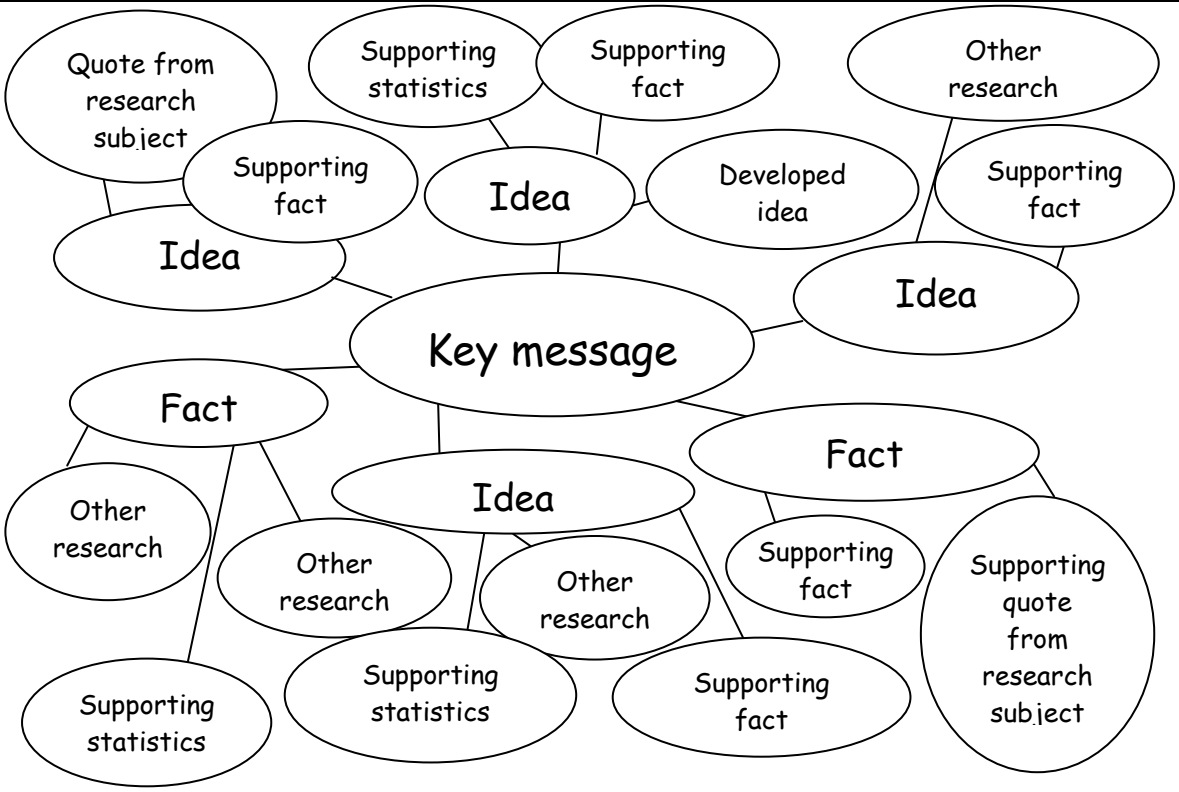
In this exercise, develop your own mind map, using the following steps:

1. Write down the key message in the middle of the newsprint and draw a circle around it, as follows:

2. Using a different colour pen, write down the main ideas and/or facts that support your key message (you can refer to your previous brainstorming to help you formulate these, but you can also add news ones that come to mind now). Place them around the key message and draw connecting lines, as follows:



3. Now, using a third pen of a different colour, write ideas or facts that support the main ideas or facts you wrote in Step 2. Write each idea or fact next to the relevant main idea or fact, and draw connecting lines. Write down any sources that will support your idea or fact. Your newsprint will start looking quite full:



***NOTE:** *Don't limit yourself: write down all the ideas that you can think of that are related to the key message. The map is fluid and changeable, and you can always add new connections or subgroups, or add branches as you work on your ideas.*

When you have finished your mind map, stick it up near your desk where you will be writing. If you think of any other ideas while you're writing, add them to your mind map.

5.3 Structuring your ideas

When you have finished brainstorming, your mind map is a complex web of information to refer to any time you get stuck in your writing. However, the mind map is not enough. You now need to structure the information in the mind map.

Good structure is key for the reader to follow the message

Structure is about the order in which you present information to the reader. Good writing presents ideas and facts in a logical way and has 'flow' – the reader should easily be able to follow you from one idea to the next, without becoming confused about the links between different ideas and information. Well-structured writing organises facts and information logically, and uses language, grammar and punctuation to link ideas together. To structure writing well, you need to think about the most logical way to organise your ideas and data. (To understand how to structure sentences and paragraphs, and the structure of a scientific paper, please refer to *Module 2*.)

The best way to develop a structure from your mind map is to 'rank' your ideas in order of importance. First rank the main ideas – there should be no more than five main ideas, as otherwise the logic will be difficult for the reader to follow. In the next exercise, we will look at how to rank your ideas in order to develop a logical structure.

Exercise 1.5

30 minutes
Individual activity
Items needed for the exercise: paper, pen

Working closely with your mind map, first think about the most logical order in which you can present your information, and then do the following:

1. Write down the main facts, as headings, in the most logical order. Leave plenty of space between each main fact, as follows:

Idea 1
Idea 2
Idea 3
Idea 4
Idea 5

2. Under each heading, list the supporting facts, information, ideas and references in the most logical order, as follows:

Idea 1
Supporting idea 1 Supporting statistics Supporting reference material Supporting idea 2 Quote from research subject

For a scientific paper, you may want to organise your ideas as follows:

- **Idea 1:** background information – this is information that will help your reader understand the context in which your research is taking place. It is probably based on existing information or knowledge from other documents (e.g. other scientific papers, meeting reports, government or international policy documents, etc).
- **Idea 2:** the research design and process – in writing up a scientific paper this material would be organised in the methodology section.
- **Ideas 3-5:** the main results of your research – in a scientific paper these would be written in the results and discussion sections of your paper.

Although it is important for you to have a structured writing plan, it should not restrict you. Things can change while you're writing, and you may think of a better way to organise the material. In that case, you should go back and change your plan so that you can keep track of the structure and check that the ideas will still flow logically.

5.4 Other preparations for writing

Once you have planned your structure, gather together all relevant material so that it is immediately available to you when you need it. Here's what you need:

- a (translated) write-up of every interview you have conducted;
- summary data for each question of any surveys you have conducted;
- any books or other documents you will refer to, or photocopies of relevant documents (in the white space on each photocopy, remember to make notes of all publication details for references, as will be discussed later in this module). Write down the following details:
  - **all** surnames and initials of authors;
  - the names of articles or book chapters;
  - the names of journals or books;
  - journal numbers and issues;
  - relevant page numbers;
  - the name of the publisher and/or organisations/institutions that published the work; and
  - the city of publication.

Before you begin to write, is to **read** through all the source material you have gathered. Reading is important for all writers: it helps you develop your ideas and learn from others about structuring your key message and writing well.

Before you begin to write, read through the notes of interviews you conducted and highlight any useful quotes. Read the data and select the data sets that illustrate your points. If you are using books or other printed documents, use post-it notes to mark the pages with quotes you want to use. On your photocopies, highlight any quotes you might want to use. As you go through these documents, also keep a notebook and pen handy to jot down any ideas you want to explore further or any new ideas or information you gather while reading. Remember to incorporate any new ideas or information in your mind map and structured plan.

Pens, highlighter pens, notebooks, post-it notes are valuable tools for writers.

Suggested reading

1. EQUINET and the University of New South Wales (2004) 'Workshop on writing for peer-reviewed journals,' *EQUINET Meeting report, Durban, South Africa, 4-7 June 2004*. EQUINET: Harare, available at: http://www.equinetafrica.org/bibl/docs/REP062004writers.pdf

Module 2:
Writing scientific papers

1. Overview

If you have worked through *Module 1*, you will have a good plan on which to base your writing. In this module you will develop your writing skills further and get hands-on with writing the first draft of your scientific paper. You can apply these writing skills in all your writing projects and contexts. In this module, we will discuss how to use your general writing skills to produce a scientific paper. Scientific papers are often published by peer-reviewed journals, but they may also be published by research institutes or NGOs. EQUINET policy papers and discussion papers (see *Module 6*) are types of scientific papers. Therefore, in this section we will provide both general guidelines to scientific writing, as well as highlight specific issues regarding different types of scientific papers.

Outcomes

In this module, you will learn more about:

- accessible writing;
- the purpose and conventions of writing scientific papers;
- the typical structure of a scientific paper;
- how to write the first draft of your scientific paper;
- other issues to consider for publication of your paper.

2. What is a scientific paper?

Scientific papers contain 'original research results or review existing results' (Wikipedia, 2007a). According to Little and Parker (2006) scientific papers 'report new results [and] relate these results to previous knowledge in the field'. Dolphin (1997) explains that a 'scientific paper is the vehicle of persuasion; when it is published, it is available to other scientists for review. If the results stand up to criticism, they become part of the accepted body of scientific knowledge unless later disproved'. A scientific paper presents a new area of knowledge or new ideas about that area of knowledge, using evidence gathered during research.

If someone copies your methods, they should get the same results. To help readers review your results:

- clearly describe the procedures followed to arrive at your results;
- put your results in perspective, by relating them to existing knowledge, including:
  - summarising the state of knowledge on the general topic;
  - relating your work to the general body of knowledge on the topic;
  - stating the critical hypotheses toward which the study is addressed;
  - interpreting the results in relation to existing knowledge; and
  - identifying scientific questions and weaknesses in the methodology that need to be addressed in the future; and
- interpreting the results for future enquiries in the field. (*Adapted from:* Cox, 1990)

A scientific paper explains what motivated your research, the design and procedures you followed, and the meaning of the results.

Centuries of tradition regarding editorial practice, scientific ethics and the relationship between printing and publishing have led to a standardised format for scientific papers. Many researchers see their papers as an opportunity to present their results. A scientific paper goes beyond

presenting results and **presents an argument and analysis**. The methodology and results should support this. The argument and analysis is best presented as a narrative, a story, as follows:

- why the research was undertaken (*introduction*);
- how the research was done (*methodology*);
- what was learnt from the research (*results*);
- interpret the results and explain how the research fits in with other research in the field (e.g. does it support existing research or bring it into question?) (*discussion*); and
- the significance of the research and how it should be taken forward (*conclusion*).

As we discussed in *Module 1*, you should identify your key argument before you begin to write, so that when writing the discussion section of your scientific paper you can show *how* the findings support the key argument. If you battled to define the key argument in planning your paper, it is a sign that you need to spend more time thinking, analysing the data and discussing ideas with others, before you are ready to write the main body of your paper.

Get clear on what you want to say before you write the first draft!

Once you are clear what you want to say, you can start to write, always being sure to make links between the research question, the methods used, the findings and the **key argument**. When writing a scientific paper, you need to stick with the evidence. Scientific writing is NOT emotional writing and the inclusion of material is based on the research questions and the design, NOT the passions of the writer. However, what interests the writer, what the writer is passionate about is likely to interest the reader as well, so if the writer can convey this interest to the reader, it makes for a more engaging read. On the other hand, if something about writing is frustrating the writer, it could mean that this area needs to be thought through better, so that the writing comes easier. Be aware of your emotions, ensure that they are not being used to filter evidence, but allow them to guide your writing style to make your work more interesting to read.

3. Typical structure of a scientific paper

Each publisher or journal has their own guidelines regarding the structure and length requirements for scientific papers. *Appendix 3* at the end of this manual gives guidelines for some of the well-established health journals, and *Module 6* lists the guidelines for EQUINET papers. Many health-related journals base their submission guidelines on a set of guidelines agreed by the International Committee of Medical Journal Editors (ICMJE), which state that a submission must have:

- a title page;
- an abstract;
- key words;
- an introduction;
- information on methods used regarding;
  - selection and description of participants;
  - technical information; and
  - statistics;
- the results;
- a discussion;
- references;
- tables;
- figures;
- legends for figures;
- units of measurement; and
- abbreviations and symbols.

Before we discuss the content of each section, let's discuss the general writing process further.

4. Writing your first draft

When we talk about 'accessible writing', we are considering the needs of readers. 'Accessible writing' is easy for the intended audience to read. Before you begin to write, think about who your readers are likely to be. For example, will your writing reach academics, policy makers, health workers or community activists? A clear picture of your intended reader will help you choose a suitable language level and style. The more accessible your writing, the more readers you will reach. Here's an example of a simple text from an advocacy training manual on trade and health:

Example 2.1

A health system includes all the actors, institutions and resources that undertake health actions. Health actions are those actions that are intended to improve health. For example, they include immunisation programmes, health promoting activities such as media HIV/AIDS awareness campaigns and treatment of disease. While the main goal of health systems is to improve population health, they also aim to:

- be responsive to the population they serve; and
- ensure the financial burden of paying for health is fairly distributed across households.

Health systems achieve these goals through:

- public health, or protecting and promoting population health and preventing ill health;
- providing relevant, quality health services and care for all according to need, and financed according to ability to pay;
- building and securing the human resources and knowledge to shape and deliver public health and health services; and
- protecting and ensuring the underlying social values, ethics and rights of health systems, including: community participation and the authority of countries to protect public health (Koivusalo et al, 2004).

(*Source:* Waddee et al, 2005)

To work towards equitable access to information your writing should be understandable to as wide an audience as possible. For example, a journal article might be accessible to students and academics, but a semi-literate community activist may find it difficult to read. A summary fact sheet should reach many different audiences with varying literacy levels. Here's an example of a complex text that many readers will find *inaccessible*:

Example 2.2

Privatisation of healthcare without regard to accessibility combined with the pressure to reduce public spending especially in health, can have adverse effect on human development (Bond et al, 2003). The introduction of user fees and price increases in health services, through cost recovery programmes, resulted in a decline in the use of medical services in countries such as Ghana, Kenya and Nigeria, resulting in an increase in child mortality and some diseases (South Centre, December 2002; Gilson, 1997). Gilson (1997) stated that fees 'dissuade the poor more than the rich from using health services'. In South Africa, for example, in mid-2000, the provincial government in KwaZulu-Natal began charging rural residents for water that used to be free (a R10 connection fee and/or volumetric charges). Thousands of poor households could not afford these costs and began using nearby rivers and stagnant ponds. Within weeks, cholera broke out and claimed more than 250 lives. It costs the South African government more to deal with the cholera crisis than it did to provide free water. To give some sense of the scale of the problem, some 43,000 people (mostly black children under the age of five) die from diarrhoea-related illnesses in South Africa every year, and total cases number 24 million. Direct medical costs for all of these are R3.4 billion, with broader losses in economic production totalling another R26 billion. To supply proper water and sanitation to everybody in the country would cost less than two-thirds of that (Mackintosh, 2001).

(*Source:* SEATINI and EQUINET, 2004)

What differences do you note between *Example 1.1* and *Example 1.2*?

Writing is accessible when it is clear and simple, and when the argument is well structured and logical. As we will discuss in more detail in *Module 3*, your writing will be more accessible if you:

- avoid **unnecessary** jargon or technical terms;
- avoid big words when there are simpler equivalents;
- avoid long, rambling sentences;
- avoid awkward sentence constructions;
- do not use redundant words;
- use a logical paragraph structure and flow; and
- use carefully chosen vocabulary.

Ideas should flow from one sentence to the next, from one paragraph to the next

The plans that you made in *Module 1* form the foundation of your writing, so keep them nearby for easy reference as you write. When you start to write your draft, refer to your structured plan and use this to create the headings and sub-headings. For a scientific paper, the main headings should be: introduction, methodology, results, discussion, conclusion and references. You may want to use sub-headings in the results and discussion sections, in order to guide the reader.

Please note that it is not a good idea to write these different sections in the order listed above. Most writers write the 'body text' (methodology, results and discussion) first, then the conclusion, followed by the introduction and summary. The reason why they write in this order is that sometimes when you're writing the body text, the direction of your writing may change; if you have already written the introduction outlining the content of the paper, you will need to rewrite it to describe what you have actually written. It's thus best to leave writing the introduction and summary till last.

You cannot write the conclusion before the body text, as you need to make sure there are logical connections between the body text and the conclusion. You will need to include some facts from the conclusion in both the summary and the introduction, so you should always write the conclusion before you write these two sections.

When you are writing the main body, you will need to focus on writing style and paragraph structure and flow. Let's look at each of these in turn.

4.1 Style

Style refers to the **tone** and **complexity** of the text. Language should be dynamic and engage the reader, not monotonous, repetitive or boring. According to Wikipedia (2007c), 'writing style reveals the personality, thoughts, and voice of a writer'. Some writers think that complex writing with difficult vocabulary and long sentences makes them sound more intelligent and educated. In an academic environment, this kind of writing is common; many academics are accustomed to speaking to each other in the same way, so it is often just a bad habit. Without realising it, these writers are doing themselves a disservice because their writing is usually tiring to read, confuses the reader and makes the writer sound pompous.

Clear, plain writing is more convincing and sounds more intelligent

Some examples of different styles you might have encountered include:

- academic style;
- journalistic style;
- technical writing;
- legal writing; and
- advertising.

Think about how these writing styles are different. For example, what is the typical style of writing in advertising, in novels, in legal documents and in technical writing? Which do you think is easiest to read? How does the tone of these different texts differ?

Factors that affect the complexity of style include:
- vocabulary (words);
- sentence structure and length; and
- paragraph structure, length and flow.

When considering the tone of a text, think about whether it is:
- objective or subjective writing;
- serious, humorous, playful or dramatic;
- precise or descriptive.

In scientific writing, the language should be formal and the tone should be serious and objective. Choose precise language, i.e. be very careful about the exact meaning of the words you have chosen – sometimes words are accepted as synonyms in non-formal writing, but in formal writing they might have specific meanings. You should not use contractions such as 'don't', 'won't' and 'isn't' and rather write 'do not' 'would not', 'is not'. Scientific writing also uses less descriptive language than, for example, advertising style or fiction style. It does not usually contain many adverbs (words which describe verbs) and adjectives (words which describe nouns). Scientific writing also does not contain figurative language, such as metaphors and similes.

One of the most common tools for assessing the language level and style is the 'Flesch test', which checks for readability and accessibility of a text. If you are using a word processor, it is usually easy to check the Flesch score of your text, as most word processors have tools for testing. Using your word processing package, you can change your grammar options to ensure that the grammar check picks up on your use of non-formal language (as discussed further in *Module 3*). So what is a Flesch score?

Table 1: Flesch scores

Reading score	Difficulty	Schooling level
90-100	Very easy	Learning to read
80-90	Easy	Semi-literate
70-80	Fairly easy	Literate
60-70	Standard	Completed junior school
50-60	Fairly difficult	Some high school
30-50	Difficult	Completed high school
0-30	Very difficult	University level and up

Scientific writing may well be very difficult to read, if it contains a lot of jargon. To reach a wider audience, aim for a readability scored of 30-60. However, when writing your first draft, first focus on getting your ideas down in a logical order. Don't worry too much about the finer details of grammar and vocabulary: these can be improved or corrected in later drafts and during your own editing process (as will be discussed in *Module 4*).

Logical writing has a flow – the ideas in your argument should flow from one to the next, they should be linked together in a logical sequence. Most readers will not remember factual details, especially not lists of facts, but all of us remember a good story, so try to tell the story of your research as clearly as possible.

In the plan you made in *Module 1* you have planned a logical sequence of ideas. When writing, these ideas will be presented in logically constructed sentences, which link together to form logical paragraphs, and then logical paragraphs link together to form a logical whole. Let's look at how to form logical paragraphs:

4.2 Paragraph structure and flow

A paragraph is a number of sentences that are grouped around one main idea. A paragraph consists of:

- a **topic sentence**, which is usually the first sentence in the paragraph and introduces the main idea;
- **supporting ideas**, which make up the body of the paragraph and support the main idea; and
- a **closing sentence**, which begs the question to be answered in the following paragraph.

Example 2.3

> Morocco plans to offset health worker shortages by increasing output from training institutions and hiring foreign health workers. Plans are based on qualitative and quantitative data generated by a management information system. Morocco worked with international partners, such as WHO and the UN, to develop the plan. After 'bottom-up' workshops with over 1,000 health facilities, the government finalised the plan in 2005. Anecdotal evidence suggests that health worker training institutions have received more applications and accepted more students since the government implemented the plan in 2006. However, Morocco has not assessed the impact of the incentives on health worker and student quotas.

In *Example 2.3*, the first sentence is the **topic sentence** because it states the main idea about Morocco's health professional recruitment plans. The next three sentences provide **supporting ideas** that give more information about the plan, and the **closing sentence** explains the status of the plan. Note the linking word at the start of the closing sentence – 'however' – which indicates that new information will be presented that contradicts the rest of the paragraph. The paragraph has a logical flow because it develops a discussion and narrative about the recruitment plan.

Another feature of a well-structured paragraph is sentences of varying length. The sentences above have 22, 14, 23, 15 and 23 words respectively, with no sentence longer than 25 words. Varying sentence length makes a text more dynamic and engaging for the reader. Apart from varying sentence length, good writing also has varying paragraph lengths. So, after the long paragraph (eight lines) in *Example 2.3*, you could follow with a shorter paragraph (six lines) to keep your writing dynamic, for example:

Example 2.4

> Linking word
> ↓
> Therefore, it is unclear if Morocco's training and recruitments plans are effective. A thorough evaluation of the health worker recruitment plan is needed to see if it is being effectively implemented and improving health worker recruitment. In this report, we present evidence on student training and compare this data to the 2005 baseline statistics. Evidence was gathered about training for doctors, nurses, radiographers, physiotherapists, lab technicians, and health centre managers.

Well-structured paragraphs also often use **linking words**, as indicated in *Example 2.3* and *Example 2.4*. Linking words help link different ideas together, and give the reader information about the flow of ideas so that they can make the same connections as you. In *Example 2.3*, the closing sentence starts with the word 'However'; this linking word tells the reader that the closing sentence links to the other points, but contradicts the main idea and supporting ideas in some way.

In *Example 2.3*, the linking word links the closing sentence to the rest of the paragraph, but you can also use linking words to make links **between** paragraphs. In *Example 2.4* the linking word 'Therefore' is used, to indicate to the reader that the contradiction in the previous sentence (of the previous paragraph) will be further explored. Using the right linking word helps you to organise your argument and evidence in support of your key message.

Some common linking words include: ‘however’, ‘therefore’, ‘furthermore’, ‘thus’, ‘but’, ‘and’, ‘also’, ‘yet’, ‘because’ and ‘although’.

Linking words are useful, but overuse can confuse readers and interrupt the flow of ideas

Keeping in mind what you have learnt about accessible writing, style, logical flow and paragraph structure, let’s look at what you need to write in each section of a scientific paper. In the sections below, we will present the different sections in the order that we recommend you write them; refer to the list in section *3* to check the correct order they must be presented in.

Remember to present an argument in your paper, not just the results!

5. Preparing a scientific paper

Different publishers have different specifications regarding the exact elements of a scientific paper. In this module, we focus on two types of publications: EQUINET publications and peer reviewed articles. Unless specifically stated, you need to complete all the specifications described below.

5.1 References

Keeping track of references can be a mammoth undertaking for any writer: the longer the text, the bigger the task! Nevertheless, if you don’t want to be declared a plagiarist or accused of deliberately infringing on copyright, it is an essential task. It’s a **big** mistake to leave referencing till last. It is less work to keep proper track of references from the outset. Rounding up all the material you have referenced when you’ve finished the bulk of your writing is much more time-consuming. So, keep a reference list from the outset! It may seem like a lot of administration at first and you may feel it interrupts the flow of your writing, but you’ll thank yourself later.

References add weight to your research and to your arguments; in the world of academic writing, a good list of citations lends support to your writing and confirms that you have done your homework. According to Fahamu (undated), in academic writing:

> *“The purpose of the references section is to provide readers with precise details of the literature you have cited so they are able to find these papers with ease. The purpose is not to demonstrate either how erudite you are or to show how much you have read.*
>
> *The literature cited is as much a part of the evidence as anything else that you include in the paper. It is part of the evidence that an independent competent scientist who specialises in your field will use to judge the reproducibility of your findings!”*

Different publications require that you list your references in different ways, for example, according to date, author surname, or the order cited. If you are submitting your writing for publication, check the reference list style of the publisher and order your reference list to match the publisher’s style. Despite variations in reference list styles, the basics of what to include in your reference list remain the same:

- all author surnames and their initials;
- year of publication;
- name of article or chapter, government document, or international convention/code;
- name of book, journal, newspaper or website;
- name of publisher;
- city of publication; and
- pages cited.

If you found the document on the internet, you should also record the date you accessed the document and the URL (website address) where you found the document, as websites change over time and therefore the URL may become invalid as well. Some authors make the mistake of

only putting a website address in their references; if you do this, you will later battle to find the document. Make sure you get all the relevant details down from the outset.

Keep a separate file on your computer where you list each reference you have used. Every time you use a particular reference for the first time, whether it is a journal article, book, newspaper article, government paper (e.g. Acts or Bills) or an international code or convention, add it to a reference list on your computer and save the list. Focus on including all the relevant information; you can organise the reference list later.

Most publishers have preferences about the order of references in the document. For example, for EQUINET papers list the references in alphabetical order based on the first author name; if there is more than one paper by the same author or group of authors, list in date order. Some publishers prefer references to be listed by the order they appear in the document or by date. Always check the publisher guidelines before your submit your manuscript and make sure you list the references in the order preferred by the publisher!

Your editor will always check your reference list, but it is often time consuming to find missing information later. If you don't make a list as you work, you might even forget where you found the citation in the first place. When it comes to the internet, sometimes the document you cited might be moved or removed, so when you return to the relevant site you won't be able to find or access the document. Therefore, it is important to note the access date and URL.

Apart from the sequence of citations in your reference list, different publishers also have different citation styles, for example:

- how author names are listed;
- whether or not there are brackets around the date;
- double or single quotation marks for articles and chapters, with a comma before or after the quotation mark;
- italics, bold or underlining for book, journal, newspaper or website names;
- either the publisher's name first or the city of publication first; and
- where to include page numbers.

Always check these styles before you submit your writing, and edit your reference list in line with the publishers' author guidelines. For a list of EQUINET citation styles, see *Appendix 2*. There are various software applications available that can format and reformat your references according to whatever style you choose – even setting your own style. This can really cut down the time needed to reformat the reference list for different publishers' requirements.

Remember if you do not give proper references and citations you could be accused of plagiarism or copyright violation. We will discuss these more at the end of this Module.

5.2 Methods

Write your methods as a narrative by describing each step and not just giving a list of instructions. The methods section should **tell the story** of your research. For a scientific paper, assume that your reader is a researcher in your field, with the same basic skills you have. You do not need to define or explain basic research procedures such as 'key informant interview', 'qualitative survey', 'quantitative survey' etc. Instead, discuss the research process, including:

- ***What*** *instruments were used in the research?* All instruments must be listed, but the description of instruments does not need to be too detailed if they are commonly used by other researchers in the field. Don't forget to name the instruments used for *analysing* the data.
- ***How*** *were the instruments used?* Describe the steps taken in your research, the order in which instruments were used and the logic of using the instruments in this order.

For each instrument listed, the methods section should then briefly describe:

- ***Why*** *were these instruments chosen?* Explain if these methods are commonly used in the field of work and give citations/ examples of where they have been used before. If the methods are not commonly used or if the methods are new, explain why they are appropriate to the subject

matter, and why existing methods were not useful in answering your research questions. Also outline validity, reliability and cultural issues regarding instruments.

- ***Who** participated in the research?* You should list both the research team AND the various 'objects of research'.
  - Regarding the **research team**, state how many researchers worked on the project and what differing roles they performed – don't forget to include those involved in *analysing* the research, where applicable. If there were field workers, explain how many there were what work they did and if they were especially trained for the research.
  - Regarding the **'objects of research'** for each instrument used explain how many participants were involved and how they were selected. For example, if you used sample questionnaires, describe how you targeted people to answer the questions, how many were distributed and how many answered. If you held focus group discussions, how many people were in each focus group, how were they selected and how was the composition of the groups decided? If you selected individuals for focussed interviews explain how many were chosen and what criteria were used for selection. Information is needed about eligibility, exclusion criteria and a description of the source population. If variables such as age, race, ethnicity and sex are important, explain their use and justify their relevance.
- ***Where** did the research take place?* Briefly list the different communities involved in the research and the places where the different aspects of the research were conducted.
- ***When** did the research get done?* In some cases this can be important information, especially if you are trying to determine change between some old research and your research, or change between the start of your research programme and the end. Stating when the research was done helps the reader contextualise the information.

The methods should give a clear picture of the research design and any problems with the process (use your original research design in the project proposal as a reference when writing this section). It describes the methods and instruments and analyses the usefulness and weaknesses of these. If you planned particular research methods, but in practice changed these, explain the change – giving valid reasons for the variation. Explain the problems in applying your methods and the bias or inaccuracies this may have led to. Include a paragraph explaining ethical clearance and the type of consent given by participants.

Describe statistical methods with enough detail to enable a knowledgeable reader with access to the original data to verify the reported results. When possible, quantify findings and present them with appropriate indicators of measurement error or uncertainty (such as confidence intervals), referencing standard works (with pages stated). Define statistical terms, abbreviations and symbols. Reference established methods including statistical methods. Provide references and brief descriptions for published methods that are not well known. Describe new or substantially modified methods and your reasons for using them.

Avoid using subheadings to structure the methods section of your paper; the logical narrative flow and topic sentences should be enough to guide your reader through the section. The activity below helps you develop your methods section and practice storytelling as part of scientific writing:

Exercise 2.1

2 hours

Group, individual and pair work

Items needed for exercise: laptop or pen and paper

In groups of 4-5 members, share the story of your research with your team members. Make notes of any questions they ask about your research and be sure to include the answers in your writing plan. Referring to the above outline, answer the following questions about your research:

- What research instruments did you use, e.g. literature review, questionnaires, key informant interviews, etc.?
- How were these instruments used? (Describe the different steps and the logic of the chosen process.)
- Why were these instruments used? (Include information about others who have used this methodology in a similar way or if it is a new methodology why it is applicable.)
- Who participated in the research? Specify the different members of the research teams and their role, as well as the different research subjects, how they were selected, and the numbers of research subjects for each step in the process.
- Where did the research take place? Briefly describe any geographic areas where your research took place (e.g. region, country, district) and explain the criteria for selection.
- When did the research take place? Over what time periods was the research undertaken, and in the case of a literature review what years does the literature review cover?

Now that you have answered the questions, organise your materials in a logcal order. Using a narrative format, write the first draft of your methodology section. Remember to write using a logical paragraph structure, starting with a topic sentence (key message of the paragraph), followed by supporting ideas and the closing sentence. The methodology section should normally not be longer than two pages. As you write, ensure that every sentence flows logically to the next, and each paragraph flows logically to the next. Always write in the simplest language possible – only include jargon and technical terms where necessary. Remember to keep a record of the publication details of any reference material you use in writing your draft.

Share your draft with a partner. Ask them to check that you have answered all the questions above and that your methodology section has a **logical narrative structure**.

***Note:** Don't worry if you don't complete the entire section in the allotted timeframe – this is merely a guide for workshop timing.*

When you have written the first draft of your methods section, refer to the model example in *Appendix 4* of this manual, to see how you can improve your draft.

5.3 Results

Before you write both your results and discussion sections, refer back to the plan you created in *Module 1*. Check that the plan is detailed and clear enough, and that you know the exact sequence in which you will present information to ensure logical flow. If you have had any fresh ideas since defining your plan, make sure to rework your plan as necessary, so that you can present the information in a way that is accessible to the reader.

The structure and format of the results section may vary widely depending on the type of research undertaken (e.g. quantitative or qualitative) and the kind of data your research has generated. For example, if your data is:

- primarily statistical, you may use several graphs or tables to illustrate the data;
- primarily based on interviews, you may use a lot of quotes to highlight common issues and concerns or themes that emerged from the research; or
- based on a literature review, give the sources of information, and organise the data around themes that emerged from the literature.

Even though the structure and style may vary depending on the type of information presented, you should always start the results section by briefly outlining the key types of information presented and let your reader know the structure of the section; this will help guide the reader through the information and make the text more accessible.

If the results section of your paper is more than two pages long, you should consider using descriptive subheadings to help you sort the information into categories and to guide the reader through the information. As far as possible, keep the subheadings short and punchy – preferably at most one line long. However, don't go over-the-top in creating headings for every type of result presented: try to group the data in a logical way. Your results section should not usually have more than two subheadings per page.

In this section, summarise and present the results of your research (data), but do not present the same data more than once (choose text, tables **or** figures, but do not use more than one presentation method). Do not provide any interpretation. Present results in logical order in text, tables and figures, giving main findings and broad results first, then specific results later.

If your research is primarily statistical, tables and figures are a good way to present detailed information, but always introduce broad results and trends in the text **before** introducing tables and figures, i.e. introduce each table and figure with at least one or two sentences, do not just insert table after table with no explanation. Also limit tables and figures to those needed to explain the argument of the paper and assess its support; no more than half of your results section should be presented in tables and figures; the rest should be text. Do not repeat in the text all the data in the tables or figures. Only list the actual data in a table or figure. Also reference all tables and figures in the text, for example:

> Most of the respondents (six of 10) in the key informant interviews were members of health centre committees (HCCs), but few had participated in planning for health centre financing (see *Table 1*).

Table 1: Health centre committee members involved in planning finances

Key informant interviews	Key informant members of HCCs	Participation in planning finances
10	6	2

Give numeric results not only as derivatives (e.g. percentages) but also the absolute numbers from which derivatives were calculated, and specify statistical methods used to analyse them. Avoid non-technical uses of technical terms in statistics, e.g. random, normal, significant, correlations, and sample. If they're meaningful, include analyses of data by variables such as age and sex.

Unless a figure provides good visual information for the reader, rather present data in tables. Avoid using figures with too many variables, as they can be confusing. Make sure your tables and figures have headings and, if needed, a key. In *Module 3* you can read more about how to create tables and figures that are easy to read and visually appealing. Some journals prefer tables and figures to be in an appendix at the end of the document, rather than in the relevant place in the text.

Follow publisher requirements about placement of tables and figures

Some publishers limit the number of tables and figures your article can contain; some online journals will allow access to many tables and figures on the site, but separate from the paper. For EQUINET papers, avoid using appendices and include tables and figures in the relevant place in the text.

If your data emerges from interviews, you will need to decide how to identify (e.g. name, 'job description', 'group participant', etc.) those quoted, depending on whether research participants agreed to be identified or whether you agreed not to disclose their identity. You will also have to decide on a consistent style for presenting quotes from interviewees, e.g. in quotation marks with identifier (name or description) in brackets, or in boxes with the identifier inside or outside the box, etc. You should also consider whether or not to include information about the date and place where the interviews were undertaken.

If your data emerges from a literature review, make sure you reference every data source correctly, and make sure that every useful piece of literature you found is presented in the results section, with the relevant citation.

The length of the results section will vary widely depending on the length of your paper and the extent of the original research project. However, it should not usually be more than 1/3 the length of the total paper, e.g. for a 30 page research report, stick to about ten pages to guide the length of your results section; for a 3000 word journal article, report your results in about 1000 words.

Whatever the nature of your results, make sure you present them using proper sentence and paragraph structure. Many authors make the mistake of presenting results in bullet lists or multiple tables: this is exhausting to read and difficult to digest, making the data inaccessible to the reader. Try to present the information in an interesting way, varying sentence and paragraph structure as much as possible, as this section can otherwise seem very repetitive. It is important to sustain your readers' interest in reading the results.

Exercise 2.2

1 hour

Individual work

Items needed for exercise: laptop or pen and paper

Read section 5.3 above and answer the following questions:

1. List the key results of your research.
2. Decide on the order in which you will present your results, and develop a plan for structuring the results.
3. Write the introductory paragraph for your results section, explaining to the reader the order in which information will be presented in the section.
4. Using narrative style and logical paragraph structure, write up the results of your research. If you want to include graphs and tables, refer to *Module 3* to guide your presentation.

***Note:** Don't worry if you don't complete the entire section in the allotted timeframe – this is merely a guide for workshop timing.*

5.4 Discussion

In some papers the discussion and results sections are merged, with a brief discussion of each result, followed by an integrated discussion. The two sections are often merged to make links clear, and this is often done in a literature review. If the two sections are merged, you should organise the different sections using brief descriptive subheadings to guide the reader. However, it is usually better to keep the two sections separate, as in the results section you present your data, and in the discussion section you present your **key argument**: your analysis or interpretation of the data. If you are presenting the two sections separately, use similar subheadings to those in the results section, to guide your reader through the discussion and to make links to the relevant data.

The discussion section creates a synthesis between all the previous sections and other research in the field. You can highlight new and important aspects of the study and conclusions that follow from them, but do not repeat data or material from previous sections. Start with a broad overview discussion first, then move onto the details and then conclude with a final paragraph drawing all

the findings and discussion to reassert your key message. The discussion should make links between the key argument and the findings, showing how the evidence supports the key argument, and if necessary, how the findings contradict the key argument.

Summarise the main findings, then explore possible mechanisms or explanations for them, comparing and contrasting the results with other relevant studies. In this section, it is also important to discuss how the key argument is supported or contradicted by other research in the field, and how the research findings are supported or contradicted by other research. Do not go off on tangents in this section, but stick to evidence you have to back up your key argument. If you did not find all the evidence to support your key argument in your own research, you should refer to other research that does have the evidence.

Restate the aims of your research, detailing how well you achieved the aims and justify your argument, including:

- how the results relate to (strengthen or weaken) your hypotheses and key messages, as outlined in the introduction;
- how your results are supported by – or go against – existing research in the field; and
- theory about the reasons for specific results, with supporting evidence.

This section is likely to be the heaviest in terms of citations, as many references are needed to show that your argument is related to other research in the field (although in the case of a literature review, both the findings and discussion sections would be very reference heavy).

The discussion section of the paper is also likely to be the most theoretical, as you theorise about why you got the particular results from your research. In some cases, if your research results contradict the results of other research, this could be due to a flaw in your own research, a flaw in other research or because of changes over time. If any of your results were surprising (either to yourself or other researchers) you need to carefully offer a theoretical explanation for this that is supported by the findings. You can present theories for which there is no evidence, but then you should highlight the lack of evidence and suggest this as an area for further research.

Link conclusions with goals of study but avoid unqualified statements not supported by data. Avoid statements on economic benefits and costs unless you include appropriate economic data and analyses. To conclude:

- Note problems with the methods and explain anomalies in the data. Do not simply list the problems but thoughtfully discuss the implications of the errors for your conclusions.
- Suggest future directions for research, new methods and explanations for deviations from previously published results etc.

You have the most latitude for creativity in writing up your discussion. In this section, you must present your original ideas about and analysis of the results, but remember to keep your ideas and analysis rooted in the data. If you want to state new hypotheses, clearly label them as such. Even though it is the most creative section, with the most scope for using interesting language and sentences, keep focussed on presenting your argument logically, in a well-structured way.

Exercise 2.3

1 hour

Individual work

Items needed for exercise: laptop or pen and paper

Referring to your mind map and writing plan, write the discussion section of your paper. Remember to link the key points in your argument to the results in the previous section and present other research that supports your argument (using citations). Don't forget to keep track of and save all the references you use as you write up the discussion section.

***Note:** Don't worry if you don't complete the entire section in the allotted timeframe – this is merely a guide for workshop timing.*

5.5 Writing the conclusion

Writing the conclusion to your paper may be one of the most difficult tasks. Here's why:

> *"Conclusions have to be consistent with the rest of the essay. The two main functions of a conclusion are to summarise the main points or theme of the essay and to make observations, predictions and/or recommendations".*
>
> *(Source:* University of Hong Kong, undated*)*

A conclusion should contain the following information:

- Did you achieve the objectives of your research?
- Summarise the main points of your argument (main implications) and the key message.
- What were the limitations of the study? Explain the contexts in which your arguments are applicable (or not).
- Does the research have validity?
- Restate your position as a researcher.
- Recommendations, , which should be aimed at specific people or groups of people and should explain how they should **change** their actions, including:
  - areas requiring further research to confirm your results or help develop knowledge in the field;
  - policy changes required;
  - actions to be taken by researchers or others;
  - how you will take the research forward (e.g. lobbying government, community education, engaging in public debate, further research, etc).

You can also suggest the implications or significance of your study, for example:

- In what direction will your conclusion lead?
- What can people (e.g. communities, policy makers, activists and other researchers) do with this knowledge?
- How will the conclusion help other researchers?

Like the rest of your paper, the conclusion should have a logical structure. For example:

- Start by restating your key message.
- Restate in one or two summary paragraphs the evidence that supports your key message.
- Mention gaps in the research, but explain why this does not weaken your overall conclusions.
- List some key ways that your conclusions can support or effect needed change (recommendations).
- State how you will take the research forward.

5.6 Introduction

The introduction is probably the most important piece of writing for your publication. If the introduction is well written and thought provoking, it is more likely that a reader will go on to read the rest of your writing. If it is badly written, the reader will probably give up in frustration! In particular the first sentence is the most important, and writers should try to make a good impression from the first word. Therefore, it is worth taking time to write and polish your introduction. First impressions count! An introduction should give your reader some idea of your style of writing, the kind of information you will present and the nature of your argument.

So, what makes a good introduction? An introduction should:

- start with an arresting sentence or two that are unique to your paper and which draw the reader in;
- outline the key message or focus of your writing;
- give background and context for the rest of your piece, including:
  - historical/ political/ geographic/ economic country or community background relevant to the research, including relevant statistics;

  - background on the context of the research, for example, describe the current field of research and what it covers, gaps in the research, differences between research and contradictions, whether similar studies have been done in other areas, etc.;
- briefly explain why you have written the piece, including how it:
  - is different to existing writing in the field;
  - contradicts existing writing; or
  - brings together different strands of existing research in the field;
- introduce and define terms and concepts you will use in your writing;
- briefly describe the topics that will be tackled in the piece as a whole, as well as the structure of your argument.

Write the most general information first and specific information in later paragraphs. Make clear the relationship between the background and the topic under discussion. Remember to make clear the purpose of your research, including: what you learnt during the research process, key learnings from your research, and any questions that were left unanswered by the research process.

There are no strict rules regarding the order in which you present the information, but it is usually helpful to:

- open with an interesting feature of an existing problem or gross injustice with needs to be addressed;
- move on to include background information, as this helps readers locate themselves in the writing OR open by presenting your key argument; and
- conclude with a description of the piece as a whole and the structure, as this prepares readers for the next section.

Discuss each of the above topics in a paragraph or two; do not go into detail at this stage. If you have written the body text and conclusion first (as previously suggested), you will have covered all the detailed pieces of information and argument, and will be less inclined to waffle when writing the introduction. If you do find yourself writing new ideas or pieces of information in the introduction, rather find a suitable place to insert them in the main body text.

Regarding background information, you might include a country/province or district profile (if your writing is regarding a particular place), why you undertook the research (if you are writing about research), and/or the idea that led you to write the piece. You can then outline your key message and explain where it fits into the terrain of existing material in the field, for example, by citing a few key research documents or studies (but keep it brief; you should have already elaborated in your main body text). As you write these paragraphs, carefully introduce any key terms or definitions that are important to understanding the rest of the piece. Do not be too corny or sentimental in your opening sentences and do not state the obvious, for example, instead of ‘The HIV epidemic continues to cause millions of deaths every year throughout the world, with sub-Saharan Africa bearing the brunt of the epidemic….’, rather be more specific, e.g. ‘For most AIDS victims, finding enough food is their greatest daily concern.’

When you describe the key points, you will discuss and outline the structure of the piece, so you can write a single introductory sentence and present the rest in a numbered list – in the order in which you will present the information.

Edit and rework the introduction several times to make sure it grabs the reader

Once you have drafted your introduction, you can always improve by cutting, restructuring and improving word choice and sentence structure. Refer to the example in *Appendix 4* for more guidance on writing your introduction. Your introduction should be no more than three pages long for a 30 page report. Never underestimate the importance of a good introduction, and **never** stick with your first draft!

5.7 Writing the (executive) summary

Many writers are confused about the difference between the introduction and the summary. According to *Writing for Change* (Fahamu, undated):

Put simply, we can distinguish the summary and the introduction like this:

- *The summary of a document is a version of the whole document in miniature.*
- *An introduction is a part of the document that tells the story of how it came to be written. It may also include other elements.*

Not all publications will have an executive summary. Journal articles usually provide a much shorter abstract. Longer reports do however often need an executive summary, and it is a requirement in all EQUINET Papers. These are useful as they can be converted into 'stand alone' briefs on a paper. They should thus provide essential information on the research questions, the methods, the findings and the conclusions.

Writers will frequently battle to summarise. If editors are left to create the summary, they may not see the information or argument in the same way as the writer. Therefore, it is important for writers to grapple with the summary themselves. In your summary you could, for example, write a paragraph or two on each of the following:

- the key message;
- research methodology or structure of argument;
- each main point (either the result and conclusion from research or the key arguments); and
- results or conclusions.

When writing the summary, go back to your original mind map. Think about how you structured your piece, and then design a structure to guide your summary. Before you begin to write, remind yourself to be concise! As you write, pay attention to sentence structure, sentence length and wordiness, and focus on presenting the key points in a logical way.

Although every piece of writing is different, and content should always guide length, you rarely need a summary of more than 1-1½ pages. If you are like most writers, you may try to keep it short, but end up with a first draft that is still too long. Therefore, set aside time for editing, editing and editing again, until you have made the key points clear and concise. For inspiration, refer to *Appendix 4*, which shows you step-by-step how an author rewrote the first draft of their executive summary.

5.8 Abstract

An abstract is a shortened version of the paper usually required in journal papers. It contains a brief explanation of all information needed for the reader to determine:

- the objectives of the study;
- how the study was done;
- the main results; and
- the significance of the results.

Often, journal readers only read the abstract to decide if they are interested in reading further. Therefore, write this section carefully and concisely to have the greatest impact in a few words. Although this section appears first in the paper, it is usually written last. Ideally, your abstract should be 100 to 350 words, depending on journal guidelines. Author guidelines will also give specific instructions about the structure of the abstract (see *Appendix 3*). Let's look at two example abstracts:

Example 1

Background

The Health Service Extension Programme (HSEP) is an innovative approach to addressing the shortfall in health human resources in Ethiopia. It has developed a new cadre of Health Extension Workers (HEWs), who are charged with providing the health and hygiene promotion and some treatment services, which together constitute the bedrock of Ethiopia's community health system.

Methods

This study seeks to explore the experience of the HSEP from the perspective of the community who received the service. A random sample of 60 female heads-of-household in a remote area of Tigray participated in a structured interview survey.

Results

Although Health Extension Workers (HEWs) had visited them less frequently than planned, participants generally found the programme to be helpful. Despite this, their basic health knowledge was still quite poor regarding the major communicable diseases and their vectors. Participants felt the new HESP represented an improvement on previous health provision. HEWs were preferred over Traditional Birth Attendants for assistance with labour.

Conclusion

While the introduction of HEWs has been a positive experience for women living at the study site, the frequency of visits, extent of effectively imparted health knowledge and effects of HEWs on other health providers needs to be further explored.

(*Source:* Negusse et al, 2007)

Example 2

There is a serious shortage of senior African social scientists to lead health-related research in Africa. This is despite the existence of many African social science graduates, and decades of Northern-funded research programmes intended to develop local capacity. To investigate the barriers to developing health social science research capacity in East Africa, 29 in-depth interviews, informal conversations and a group discussion were conducted with professionals in this field.

Respondents' explanations for inadequate social science research capacity primarily related to under-development and global economic inequalities. However, a recurrent theme was the predominance of individually contracted research consultancies. These seem to divert university staff from academic research, supporting colleagues and training the next generation of researchers, stunt the institutional capacity of university departments, restrict the sharing of research findings and perpetuate donors' control of the research agenda.

Although primarily due to macro-economic factors, limited research capacity in sub-Saharan Africa might be ameliorated by modifying the process by which much research is conducted. This exploratory study suggests that institutional research capacity might be strengthened if consultancy research were commissioned through institutions, rather than individuals, with the payment of substantial overheads.

(*Source:* Wight, 2007)

The abstract in *Example 1* is structured, with headings, while the abstract in *Example 2* has no headings, but is similar to *Example 1* in that the first paragraph presents background and methods, the second paragraph presents results, and the third paragraph presents conclusions. Note that in the first sentence on methods in *Example 1* the writer repeated a common error, using the phrase: 'This study seeks to explore…': a study cannot explore anything – the researchers/ writers explore. Therefore, you should rather say: 'We seek to explore…'.

In the next activity, you will practice writing your own abstract, guided by the above examples.

Exercise 2.4

1 hour

Individual work

Items needed for exercise: **laptop or pen and paper**

Referring to examples of other abstracts, write:

- A structured abstract, with headings.
- A less structured abstract, without headings, but including background, methods, results and conclusions.

5.9 Appendices

Appendices contain detailed information that you couldn't include in the main body of the paper. Other researchers may be interested in these details, including questionnaires, detailed data, transcripts from interesting interviews, or maps. Many journals do not include the appendices, although some may exclude them from the printed article and include links to them in a website version. EQUINET discourages the use of Appendices in its papers. Only include appendices that you referred to in the text

5.10 Title page

Different publishers have different requirements for the title page; always check the requirements for any publication to which you submit your manuscript. The requirements for the title page for an EQUINET paper can be found in *Appendix 2*. Usually the title page contains the title, the authors' names and institutions, and information about research funding institutions. You may need to provide additional information such as contact details, copyright notice, word count, numbers of table and figures and a statement of competing interests; check the publisher's guidelines before submitting your paper.

The title of your paper is likely to be the first thing a reader reads; based on the title the reader will probably decide whether to read further or not. Therefore your title is extremely important. Let's think some more about writing a good title:

5.10.1 Choosing a title

A good title will catch the reader's eye. Titles should be punchy and describe your key message. Weak titles are usually too long or try to give too much information. You can sometimes abbreviate titles by leaving out words such as 'the', 'a' or 'an'; good punctuation can also alleviate wordiness.

Because many researchers use computer search engines to find material, it is also important that your title include key words that researchers in your field might use to search for documents. If your document has an obscure title, it is unlikely that anyone will be able to find it in a computer search system. The kind of title you use depends on the nature of the piece of writing. For example, newspaper titles have more sensational titles using adjectives or adverbs; journal titles convey a more serious, scientific tone.

Your title should strike a balance between being too general and too specific. Here's an example of a title that is too general:

> Health Centre Committees in Uganda

This title does not give us any information about what the author has to tell us about Health Centre Committees in Uganda. Here's an example of a title that is too specific:

> Health Centre Committees in three Ugandan provinces fail to reach 80 per cent of the population, leading to poor vaccination rates and declining community participation

A better title would be:

> Poor participation in Ugandan Health Centre Committees linked to declining vaccination rates

In the next exercise, you will develop a title for your own writing.

Exercise 2.5

20 minutes
Partner work
Items needed for exercise: pen and paper

Take turns to work on your title, for about 10 minutes, as follows:

1. Briefly explain to your partner what your piece of writing is about. Your partner should note any key words you use.
2. Answer any questions your partner has about the topic.
3. Using the key words, work with your partner to create a good title for your paper.
4. Present your title to the plenary and take note of any feedback so you can improve your title later, if needed.

5.11 Keyword list

The keyword list gives you the opportunity to add keywords, *in addition* to those already in the title. Different journals allow different numbers of keywords, so always check submission guidelines; you can usually include five to 10 keywords. Terms from the medical subject headings (MeSH) list of Index Medicus (US National Library of Medicine, NLM) can be consulted at http://www.nlm.nih.gov/mesh/meshhome.html. These include terms like public health, healthcare systems, health care economics and health planning etc. Judicious use of keywords can help potential readers find your article.

5.12 Acknowledgments

Not every paper has acknowledgments, but it is good to credit those who helped you with advice, work, permission, technical advice, monetary support etc. and many journals require this.

6. Completing your first draft

Once you have worked through every section of your first draft, you need to reread your paper, checking particularly for logical flow and to ensure that you have included all the information you noted in your brainstorm and writing plan. If you have left anything out, or the logic is confusing, correct it. Double check that you have included all your references in the reference section, and check that all the references contain all the relevant information. You can then use the computer skills in the *Module 3* to polish your first draft further, but before you are ready to publish you also need to consider issues around authorship, copyright and plagiarism. Let's look at each of these briefly, in turn:

7. Authorship and copyright

Before you start writing, you need to be clear on who the authors of the project will be and who will have copyright. You also need to understand issues around 'fair use' and plagiarism, so that you avoid breaking the copyright of others. These issues are discussed below.

7.1 Who has authorship?

All writing projects have authors: some projects have one author and some have a group of authors. But **authorship** is **not** just about who **writes** the work; it is also about who takes/is given credit as the author. If there is more than one author for the project, the order in which the authors' names are listed is also crucial:

In academic settings, decisions regarding promotion, tenure, and salary are heavily influenced not only be the number of publications in peer-reviewed journals but also by the number of first-authored publications ... Professionals with strong publication records are often considered to have more competence and expertise than their less-published counterparts … Clearly, authorship credit and authorship order are not trivial matters.

(*Source:* Fine and Kurdek, 1993)

If you are student with a supervisor to oversee your research and writing project, the supervisor may wish to be given credit as a contributing author. In general, a student's supervisor is only named as an author if he or she makes **substantial inputs** into the paper/article. According to EQUINET and the University of New South Wales (2004) authorship is not strictly allocated only to those who write; it is also about:

- who was responsible for the conceptualisation, design and leading the overall study (the principal investigator and intellectual lead);
- who plays a substantial role in the field work (but doesn't include people hired to do questionnaires etc.); and
- who plays an important role in analysis (including statistics analysts if they also design the analysis).

To be considered to have authored a paper you must have contributed in at least two of the following activities: sourcing funding, doing field work, analysing and conceptualising the work, planning the study and writing the manuscript. Those who contributed the most to the work (including the writing) should be first authors.

There is a pecking order with regard to who is named first on any scientific publication. However, as explained by President and Fellows of Harvard College (1996):

Many different ways of determining order of authorship exist across disciplines, research groups, and countries. Examples of authorship policies include descending order of contribution, placing the person who took the lead in writing the manuscript or doing the research first and the most experienced contributor last, and alphabetical or random order. While the significance of a particular order may be understood in a given setting, order of authorship has no generally agreed upon meaning. […] As a result, it is not possible to interpret from order of authorship the respective contributions of individual authors. Promotion committees, granting agencies, readers, and others who seek to understand how individual authors have contributed to the work should not read into order of authorship their own meaning, which may not be shared by the authors themselves.

Discuss these issues with other authors before you undertake the work.

Fine and Kurdek (1993) also give us a warning:

"Agreements regarding authorship credit and order may need to be renegotiated for two reasons. First, scholarly projects often take unexpected turns that necessitate changes in initial agreements made in good faith. Second, many manuscripts need to be revised substantially before they are accepted for publication. These revisions may require additional professional contributions beyond those necessary for the completion of the initial draft of the manuscript. Thus, when such revisions are required, the supervisor and student should re-examine their original agreement and determine whether it needs to be modified or not".

Outside the academic setting, other authorship issues can arise. For example, if you write for an organisation or institution, it may be credited with the work and **not** the individual writers. For a longer text, like a paper or book, individual writers usually get credit but often, on publications like pamphlets, posters or briefs, only the contributing organisations get credit (this is often a space and design issue, as there may not be room on a short publication to list the authors). If you write for an organisation, in the case of longer publications, the organisation's name may appear on the front cover, with the authors' names listed only on the imprint page, depending on organisational policy. Clarify the organisational authorship policy before you start writing.

A final example where authorship might be contested is in the case of 'ghost writing'. A 'ghost writer' is a person who is contracted to write a particular piece of work, but will not receive any credit for it. Typically, speechwriters for politicians are 'ghost writers': they give up the right to be regarded as the author and the politician who makes the speech takes the credit.

Authorship issues are complex - resolve them before you start writing

You need to discuss authorship with your organisation/institution, with other authors and with your supervisor from the outset. It is a good idea to have a written authorship agreement – either in the form of a signed organisational/institutional policy agreement (these often accompany employment contracts) or in the form of a contract. This agreement should be discussed and renegotiated if, for any reason, the writing and production process change after making the initial agreement.

7.2 Who has copyright?

In law, the right to copy the ideas of another are governed by intellectual property (IP) rights. Intellectual property rights cover 'products of the mind' or intellect and imply that 'intellectual works are analogous to physical property' (Wikipedia, 2007f), and therefore:

> *"Intellectual property laws confer a bundle of exclusive rights in relation to the particular form or manner in which ideas or information are expressed or manifested, and not in relation to the ideas or concepts themselves (see idea-expression divide). The term 'intellectual property' denotes the specific legal rights which authors, inventors and other IP holders may hold and exercise, and not the intellectual work itself. Intellectual property laws are designed to protect different forms of subject matter, although in some cases there is a degree of overlap".*

Copyright is one type of intellectual property right. It is a complex area of law, and decisions about copyright are usually guided by written copyright agreements. Copyright means the person/s, organisation/s or institution/s who hold copyright are the only ones entitled to copy a piece of writing and/or grant permission to others to copy the writing, except as covered by 'fair use' laws (discussed in 2.3 below). Writing **does not** have to be published to be covered by copyright laws.

In the simplest case, if there is only one author on a piece of writing, that author is the only person who has copyright. If there are multiple authors on a piece of writing, usually one author cannot grant permission for the writing to be copied without permission of the other authors, **unless** a written agreement says otherwise.

If authors write for an organisation, they usually sign copyright agreements before they are contracted/ employed to write. In these copyright agreements, the authors usually surrender copyright to the organisation. This **does not** mean authors give up the right to be credited as authors, but only that they give up the right to grant permission to others to copy the work. In such cases, authors only give copyright for work produced for the organisation/institution or for the contracted work and **not** their private writing.

Sometimes organisations insist that authors give up copyright if they wish to be employed by the organisation, so often the author gives up copyright in order to be hired. This enables organisations to alter material written by authors for a host of different uses. In some cases organisations may also want to retain copyright so that if an author-employee leaves, they may continue to reproduce works produced by that author long after they have left. Authors also receive benefits in giving up their copyright, for example, they are better to able to access production, publication and distribution opportunities through the organisation they work for.

In some cases, copyright is not held by one person or organisation, but instead there is 'joint copyright', e.g. if there are two authors, or an author shares copyright with an organisation, or two organisations collaborate on a piece of writing. Sometimes, several authors from different organisations work on a writing project, and all give copyright on that work to their organisation. In the case of joint copyright, one copyright holder cannot grant copyright to others without the agreement of the other organisations, unless a written agreement says otherwise.

Often, the publisher of a work is not the author of the work. However, the publisher does not automatically acquire copyright from the author. The publisher can only get copyright on a work if the author explicitly agrees to it. Therefore, publishers usually approach authors with copyright agreements. Depending on the type of agreement:

- copyright of the work can be given exclusively to the publisher;
- copyright can remain with the author; or
- copyright can be given to the publisher **only** to produce the work in a specific format. For example, for a journal article, the publisher may publish the article only in the agreed issue of the journal, but may not grant rights for its publication as a chapter in a book.

In any case, as an author, you have the right to grant or deny permission to others to copy your work. You can only lose copyright by signing a copyright agreement. A copyright agreement covers the extent of the author's and the publisher's rights.

However, journals will often ask you to give up your copyright to them, so as to protect 'from copyright abuse for authors, editors, and publishers involved in the creation of a single copyright product composed of multiple contributions' (Taylor & Francis Group, 2007). When you give a journal copyright, this means they can keep reprinting and distributing your article as many times as they wish, including on the internet. Many journals prefer to hold copyright as this makes it easier for them to deal with requests 'from third parties to reproduce, reprint, or translate an article, or part of it, and in accordance with a general policy which is sensitive both to any relevant changes in international copyright law and to the general desirability of encouraging the dissemination of knowledge' (ibid).

Understand your rights and obligations in a copyright agreement before you sign it.

With the advent of the internet, many journals are also now 'open access' (OA) journals:

> *"Open-access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions. What makes it possible is the internet and the consent of the author or copyright-holder. […] In most fields, scholarly journals do not pay authors, who can therefore consent to OA without losing revenue. In this respect scholars and scientists are very differently situated from most musicians and movie-makers, and controversies about OA to music and movies do not carry over to research literature. […] OA is entirely compatible with peer review, and all the major OA initiatives for scientific and scholarly literature insist on its importance. Just as authors of journal articles donate their labour, so do most journal editors and referees participating in peer review".*
>
> (*Source:* Suber, 2004)

The implications for authors of open access publishing are that many more readers can access their articles, and therefore, citations may greatly increase. For African authors, this is good news, as it means more exposure for their work.

7.3 Plagiarism

When you commit plagiarism, you are claiming that you are the author of a work actually written by someone else, without their permission. Plagiarism is illegal. **Never** claim authorship of work you did not write:

> *Within academia, plagiarism by students, professors, or researchers is considered academic dishonesty or academic fraud and offenders are subject to academic censure … Some individuals caught plagiarising… claim that they plagiarised unintentionally by failing to include quotations or give the appropriate citation.*
>
> (*Source:* Wikipedia, 2007d)

In the academic context, it is important to credit the original author/s and to keep track of any material that you used by providing a detailed bibliography/reference list at the end of the work. The term 'plagiarism' only applies when you fail to give credit where credit is due. Therefore, you can copy a portion of any text and include it in your own text, provided that you give credit to the original author/s. When you quote from another work you must make clear which text was copied,

either with quotation marks or with indented italicised text. Also include the author name, year of publication and in the case of printed publications, the page number. It is not good practice to cite more than a few lines of text.

Although you are allowed to cite small portions of text with acknowledgement, you may not, for example, photocopy someone else's entire text and distribute it – this is not plagiarism, but is regarded as **copyright infringement**. (In some instances you can photocopy a whole text without infringing on copyright, for example, if an article will be used for educational purposes. This exclusion needs to be explicitly stated in the paper.)

One of the most common ways that authors infringe on copyright or plagiarise other works is in taking artwork from other sources. If you want to use graphs, figures, photos or PowerPoint presentations in your work, you **must** get permission from the publisher/copyright holder. In most cases, it is the author's responsibility to seek permission to use any copied artwork in their paper. Even if you do receive permission to copy the artwork, you must still provide a reference to the original (usually the publisher or copyright holder will specify how you must acknowledge them).

If you decide to copy a portion of another author's text, you should be guided by 'fair use' laws. 'Fair use' means that you may copy or quote part of the piece of writing **without the permission of the copyright holder**, provided the author and copyright holder are credited. You do this by putting the material in quotes and giving the author reference citation. 'Fair use' includes reproduction for criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship or research (Wikipedia, 2007e). When you copy or quote (while crediting the author, of course) you can check whether 'fair use' rules apply by considering these criteria:

- **The amount of material copied:** Typically, no more than 10% of any given text may be copied.
- **The reason for copying the material:** For example, you may copy for non-profit educational purposes, but not for profit or resale.
- **The nature of the copyrighted work:** For example, a newspaper could publish the entire speech of a politician or other public figure without infringing on their copyright.
- **The value of the copyrighted work** and potential market for the sale of that work should also be taken into account. According to Wikipedia (ibid) this clause 'measures the effect that the allegedly infringing use has had on the copyright owner's ability to exploit his original work. […] whether the defendant's specific use of the work has significantly harmed the copyright owner's market, but also whether such uses in general, if widespread, would harm the potential market of the original'.

'Fair use' only applies if you give credit to the original author/s.

If you have any doubt about whether your use of another person's writing is 'fair' or infringing on copyright, contact the author/s and/or copyright holder/s for written permission to use the material. All these issues must be cleared up and dealt with **before** you send a manuscript to a journal editor for consideration.

Suggested reading

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12. Taylor & Francis Group (2007) *Copyright Transfer FAQs*. Informa plc: London.
13. University of Hong Kong (undated) 'Writing conclusions,' *The Writing Machine*. University of Hong Kong: Hong Kong, accessed on 10 September 2007 at: http://ec.hku.hk/writingmachine/bin6/default.htm
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16. Wikipedia (2007a) 'Academic publishing,' Wikipedia: The free encyclopedia. Wikimedia Foundation Inc: Florida, USA, accessed on 17 September 2007 at: http://en.wikipedia.org/wiki/Academic_Publishing
17. Wikipedia (2007c) 'Writing style,' *Wikipedia: The free encyclopedia*. Wikimedia Foundation Inc: Florida, USA, accessed on 16 August 2007 at http://en.wikipedia.org/wiki/Writing_style
18. Wikipedia (2007d) 'Plagiarism,' *Wikipedia: The free encyclopedia*. Wikimedia Foundation Inc: Florida, USA, accessed on 8 August 2007 at: http://en.wikipedia.org/wiki/Plagiarism
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Module 3:
Computer skills for writers

1. Overview

It is a good idea for writers to brush up on their computer skills so that you can set up your document correctly and format your writing. Writers today are very fortunate to have word-processing packages to assist them with writing. In this module, we'll look at some of the key word processing tools that can help you deal with some basic writing issues. Once you have written your first draft, you can use computer skills to help you address grammar and spelling errors.

This Module will help you develop writing skills to use before, during and after your paper is written. Although the Module appears after you have written your first draft, you can use it to help you at any stage in writing. We recommend revisiting this section often to continue practicing your skills, as well as to make sure your writing is grammatically correct and correctly formatted.

You will only remember computer skills learnt if you use them often!

Outcomes

When you have worked through this module, you will have learnt about some key computer writing tools, including:

- setting the language of your document;
- setting up a template for writing and installing templates;
- using spelling and grammar checks and the Thesaurus;
- creating tables, figures, bulleted and numbered lists, footnotes and endnotes;
- creating tables of contents, figures and tables lists; and
- formatting your own writing.

2. Useful word processing functions

Word processors are computer programmes designed to help you write. There are many word processing packages, but they usually all have the same kind of tools. The most commonly used word processor is MSWord, so we'll use it in this module.

Most writers use basic tools offered by word processors, such as the spell check, fonts and making text **bold** or *italics*, but there are many other tools on offer, including:

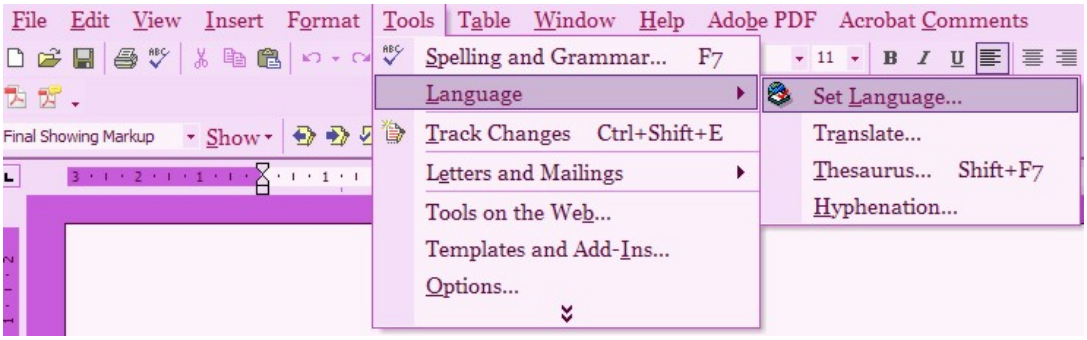
- language check, including spelling, grammar and thesaurus;
- templates;
- creating a table of contents, and lists of figures and tables; and
- creating tables, figures and bulleted lists.

We'll cover each of these tools in more detail in this module. Remember that whatever document you are writing, you should use as little formatting as possible until you have written the final draft, and even then, leave out formatting if it is not your job to do it. Layout is a specialised area, and if you include complex formatting, the editors and designers will have the frustrating job of removing it later so that they can format it correctly for the final product. In addition, stick to writing lower case, as it is time-consuming to change case later, and you make work for the editor if you write in uppercase unnecessarily (if you have already written headings in uppercase, you can change it by highlighting the text and pressing Shift F3 on your keyboard).

3. Language check

In order for the word processing program to assist you with spelling and grammar checks, you first need to select the language in which you will be writing. In MSWord the default language is US English, but for those English speakers in Africa, UK English is preferable. *All EQUINET documents **must** be written using UK English*. If you frequently write for African or British publications, you can change your default language to UK English. To do this now, select:

Tools
Language
Set Language



Choose from the scroll down list the language you want as your default option. Then select:

Default
OK

If you don't want to set the default language to UK English, remember to set up your language for each document before you begin to type, based on the language of the publication to which you will submit your writing. You can select the language for each document as follows:

Tools
Language
Set Language

Select the language from the scroll down list and hit: OK

If you want to change the language on an existing document, select all the text, then select:

Tools
Language
Set Language

Select the language from the scroll down list and hit:

OK

4. Templates

A template is a 'pattern' you can use to help you structure your documents. It contains information about the paragraph styles in your document. Paragraph styles include information for each type of paragraph, such as:

- the font used, including the font name, the font size and whether it is written in bold, italics, small caps etc;
- the justification of the text (e.g. left, right, centred, full justification); and
- the spacing between paragraphs.

You can name each paragraph style. So for example, you could call the main headings 'Heading 1', the sub-headings 'Heading 2' and the main paragraph text 'Normal'. Later in this section, we will look at how to set and name your own paragraph styles.

If you use these tools, it can save you a lot of time in writing your document, particularly when it comes to structuring and formatting your document. Before you begin to write, it is a good idea to set up (or install) your template for the document you will be working on. In the next sections we'll first look at how to set up a template, how to use the same template for several documents, and then how to install an existing template.

4.1 Setting up your template

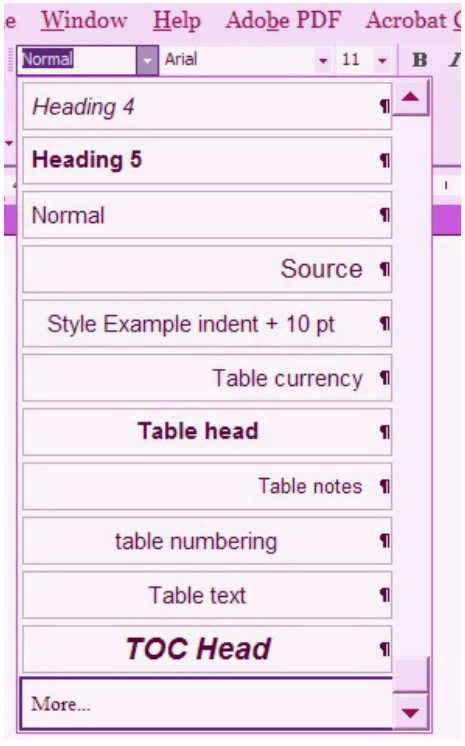
To set up your template, first make sure your Formatting toolbar is switched on and visible at the top of your screen. On the menu at the top, select:

View
Toolbars

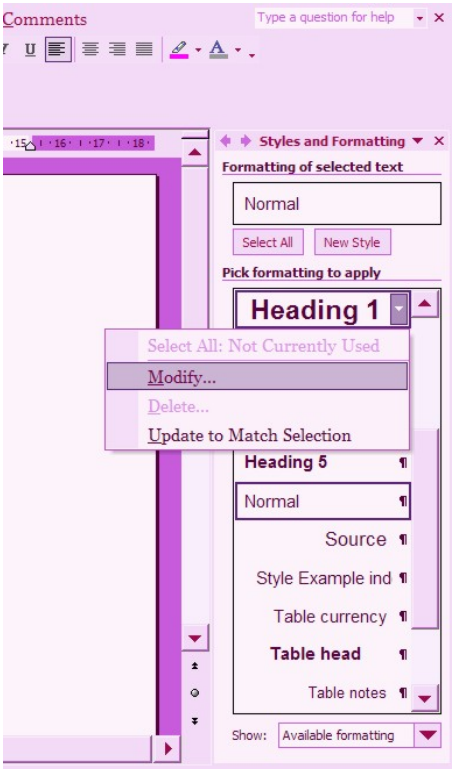
Check that there is a tick next to 'Formatting'; if not select it. Under the menu, a number of windows should now be visible, including one with style names, font names and font size. You will use these to proceed with setting up your template for your document.

Let's refer back to the mind map and structure you creating during your planning in *Module 1*. Write your short key message as the title of the document, then click on the down arrow on the style menu and select the option called 'Heading 1'. This is the title of your document. You can revise it later if you need to.

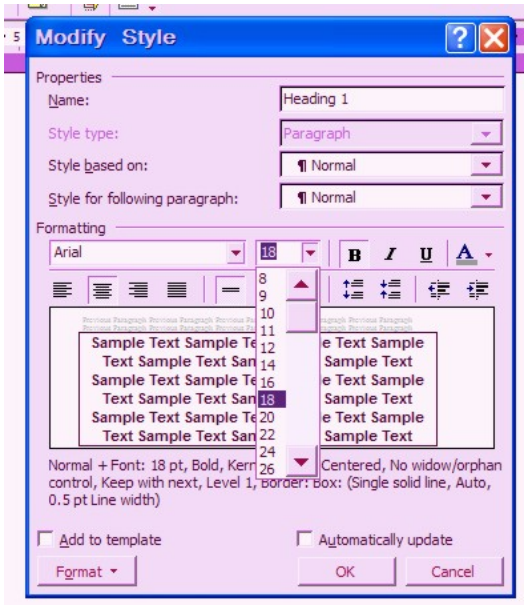
In your structure, you have listed headings and subheadings. Type these into your word processing package in order. Put your cursor on each main heading in turn and click on the down arrow on the style menu. Select the option called 'Heading 2'. Then click on each subheading in turn, click on the down arrow on the style menu and select the option called 'Heading 3'.
Between each heading insert a Hrt (i.e. hit ENTER on your keyboard). Now check the paragraph style between each heading is 'Normal'. If it is not normal, click on the down arrow on the style menu and select the option called 'Normal'.



Now set the fonts for these headings and normal text: click on the down arrow on the style menu, scroll down to the bottom of the list and select: 'More…'.
A new menu will now open on the right hand side of your text screen. Hold your cursor over 'Heading 1' and click on the arrow on the right hand side, then select 'Modify'. This will open a new formatting window.

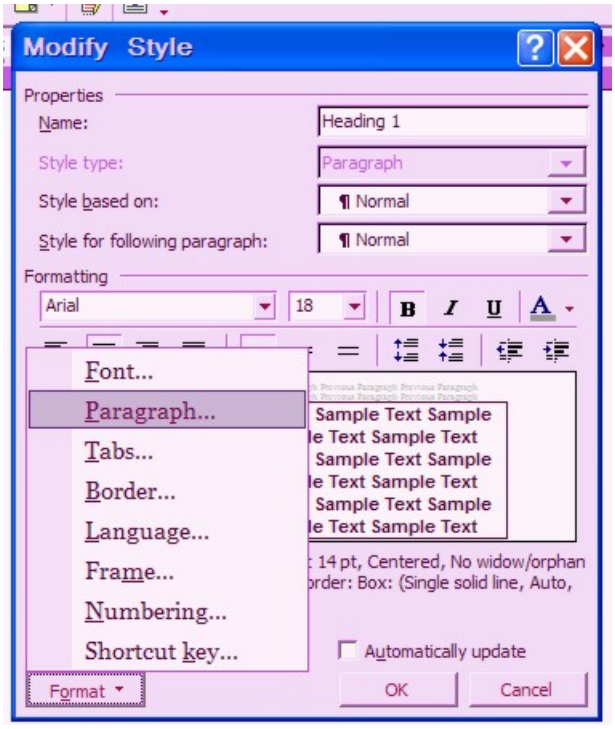


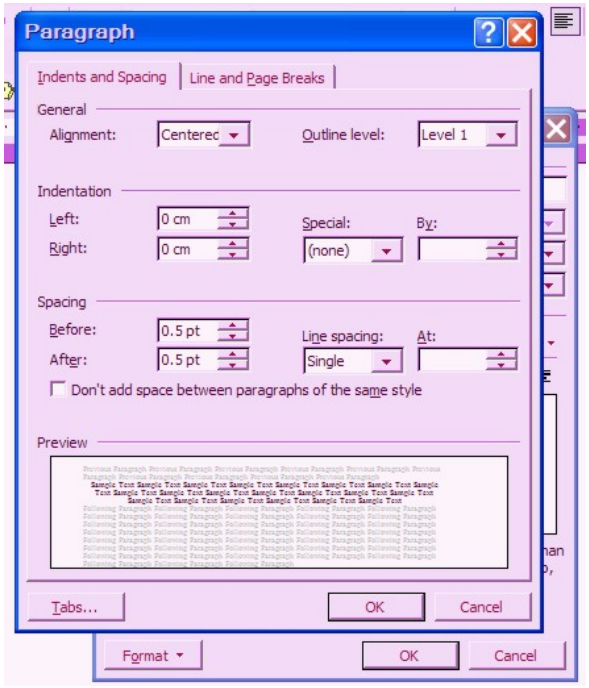
You can then select fonts and font sizes for 'Heading 1', and decide on the paragraph format. For EQUINET style, set 'Heading 1' font size at: **Arial 18pt bold**.



Select the paragraph justification option; for EQUINET style, select the 'centre' icon.

For EQUINET style, the title also needs a border, with 1/2 pt spacing. Click on the 'Format' button on the bottom right and select 'Paragraph…'. A new window will pop up. Select spacing 'Before' and 'After' and set at 0.5pt for both. Then click 'OK'.



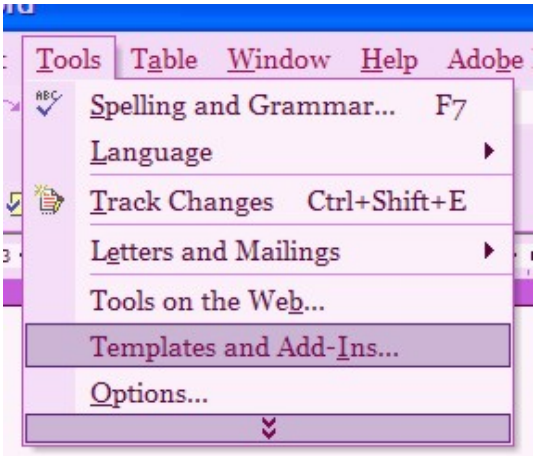


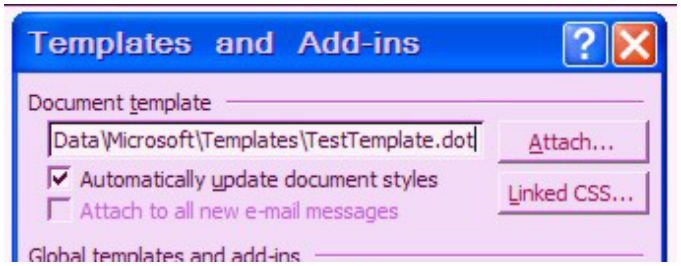
Now when you select 'Heading 1' in your document it will use these settings. Follow the same steps to set all your other heading levels. We have listed font names and sizes under number 28 in the EQUINET Author Style Guide (in *Appendix 2*).

Now you need to save the template you have created, so that you can use it for future documents, as required. In the next section, you will learn how to do this:

4.2 Saving and choosing an existing template

From the 'File' menu at the top of your screen, select 'Save As'. Type in a filename, e.g. 'TestTemplate', and from the pull down menu, select 'Document Template', then hit 'OK'. To check that your template has saved correctly, close the document you are currently working in and from the 'File' menu at the top of your screen, select 'New'. Now from the 'Tools' menu select 'Templates And Add-Ins'; this will open a new window. Click 'Attach…' and select the 'Test Template' filename, then hit 'OK'. Click on the tick box option that says: 'Automatically update document styles'. Now when you write text and choose 'Heading 1', your document will use the template settings.





It is simple enough to set up and save a template on your computer, but sometimes you might want to share a document template. For example, if you are writing an EQUINET discussion paper or policy paper, you might want to use the EQUINET template. That gets a little more complicated, but we will look at how to do it in the next section.

4.3 Installing an existing template

In the next activity, you will practice installing the EQUINET template onto your computer, for you to use whenever you write an EQUINET paper.

Exercise 3.1

20 minutes

Individual work

Items needed for exercise: laptop, memory stick with EQUINET Style

Follow the instructions below to install the 'EQUINET Style' template:

1. Insert your memory stick into your USB port on your laptop. Open Windows Explorer and go to the drive for your memory stick (usually E:, F:, or G:).
2. Find and select the file called 'EQUINET Style' and press 'Ctrl C'.
3. Go to the folder 'C:\Documents and Settings\username\Application Data\Microsoft\Templates'* and press 'Ctrl V'. The 'EQUINET Style' file should now appear in this folder.
4. Open MSWord program. Select 'Tools', 'Templates And Add-Ins'; this will open a new window. Click 'Attach…' and select 'EQUINET Style', then hit 'OK'.
5. Click on the tick box option that says: 'Automatically update document styles'. Now when you write text and select styles, you can automatically choose EQUINET Styles.

Once you have installed 'EQUINET Style', choose it anytime you want to write an EQUINET paper, by following the instructions in ***4.2*** above.

****NOTE:** The exact directory where templates are saved may vary depending on the version of MSWord you are using – remember to save the file in the same directory as for other templates.*

If you write using a template, your writing process can become more orderly.

Although templates are not central to good writing, they can help you see your document as a final product. Some of the tools we'll teach you to use later in this module also will only work if your document is correctly formatted.

Spelling and grammar are more central to good writing. Let's look at how you can use your word processor to improve your spelling and grammar skills:

5. Spell check

In your MSWord programme, your spell check might already be switched on. You can check this by deliberately typing in misspelled word, e.g. 'thier'; if it is underlined with a red zigzag line, you know the spell check is switched on. If the incorrect word is not underlined with a red zigzag line, switch the spell check on. To do so, select:

Tools
Spelling and grammar

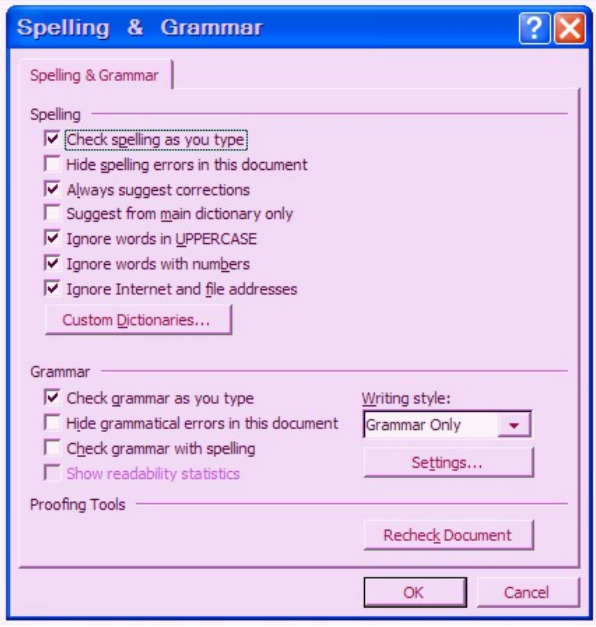
A new window will open. Select:

Options…

Tick the boxes marked:

'Check spelling as you type'
'Always suggest corrections'

Select 'OK' and then 'Close' the grammar and spelling window. When you return to your document, spelling mistakes should be underlined with a red zigzag. To correct incorrect grammar, point your cursor at the incorrect word and click the right mouse button. From the drop down list, select the correct spelling option and the error will be automatically corrected.



Even if you correct spelling as you work through your document, always check the spelling again at the end in case you missed anything. To do this, select:

Tools
Spelling and grammar

Incorrect words will be listed and you can then choose whether to ignore the spelling or change it, using the buttons in the spell check window.

6. Grammar

In your MSWord programme, your grammar check might already be switched on. To check if it is on, type the previous sentence in your document window; if the words 'might already be switched on' are underlined with a green zigzag, your grammar check is on. If the text is not underlined, switch on your grammar check. Select:

Tools
Spelling and grammar

A new window will open. Select:

Options…

Tick the box marked:

'Check grammar as you type'

Also select 'Grammar and style' from the drop-down menu. You can also choose the kinds of grammar errors the program will mark. Press the button marked 'Settings' and select which errors should be marked; for an academic text, you should select all the options as this will give you the most assistance with your writing. Select the options by marking a tick (✓) in each box, then select: 'OK', 'OK' and 'Close'.

When you return to your document, incorrect grammar should now be marked with a green zigzag line. You can correct the incorrect grammar, by pointing your cursor at the error and clicking the right mouse button. In some cases, a list of possible corrections will be listed and you can select from these. Sometimes it just lists the nature of the error and you will need to edit the error yourself (you will learn how to fix common grammatical errors in *Module 3*).

In addition to using the grammar tools to check grammar as you type, you may also want to check the readability of your writing as per the Flesch score discussed in section *4.1* of *Module 2*. This will help you determine if your writing is accessible to the type of reader you wish to reach with your writing. To access readability statistics in MSWord, select:

Tools
Spelling and grammar

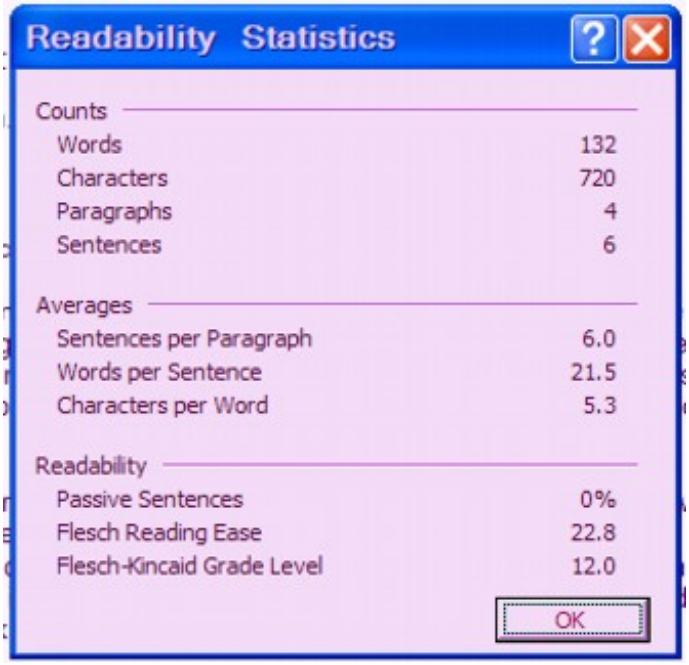
A new window will open. Select:

Options…

Tick the box marked:

Show readability statistics

Now complete a grammar check. When MSWord has finished the grammar check it will display readability statistics. As you can see from the example, the checked document had less than 25 words per sentence (21.5), used mainly short words (5.3 letters per word), and reasonably short paragraphs (6 sentences per paragraph), therefore it was likely easy to read. The Flesch score of 22.8 indicates, however, that the text was difficult to read – but still accessible to someone with a university education.



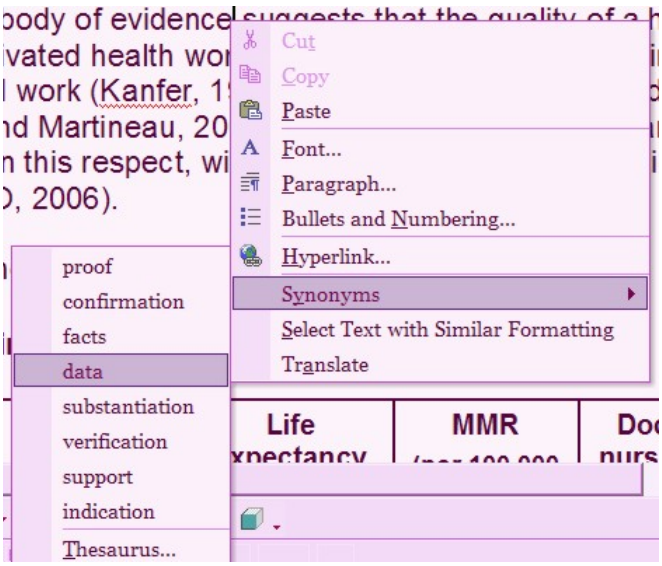
7. How to use the Thesaurus

Often writers find themselves using the same word again and again … and again! But most words in English have a *synonym* (a word that means the same), so there is no excuse for word repetition. You can use a special kind of dictionary to find synonyms called a 'Thesaurus', but to make life simpler, most word processors have a built in Thesaurus. You can easily replace repetitive use of the same word with a few clicks. For example:

evidence, data, facts proof, confirmation, support
satisfied, content, pleased, happy, fulfilled, contented
perceive, see, recognise, notice, observe

In MSWord, you can simply point your cursor at the word you wish to replace and select the Synonyms option from the drop down menu. A second drop down menu will appear with a selection of other words; simply click on the one you like most and it will automatically replace the word in your document, as in the example for 'evidence' below.

Sometimes the list does not give you a suitable synonym, or you might want to explore for further synonyms. In that case, click on the Thesaurus option. You can then use the pop out window to search for other options either by typing in another word, or clicking on options listed for the same word. For each word you click, a new list will appear. When you find a suitable word, select it and hit the Replace button. The word you selected will then be replaced.



For example:

> The **evidence** from the community survey showed a marked decline in the numbers accessing healthcare once the Community Health Insurance Fund was introduced, but the **evidence** does not make clear if this was due to improved health in the community or if more complex procedures were creating blocks to access.

The word 'evidence' is used twice in the same sentence. Using the Thesaurus, you could change it to read:

> The **evidence** from the community survey showed a marked decline in the numbers accessing healthcare once the Community Health Insurance Fund was introduced, but the **data** does not make clear if this was due to improved health in the community or if more complex procedures were creating blocks to access.

The Thesaurus only replaces a single word, not all of those words in your document!

Exercise 3.2

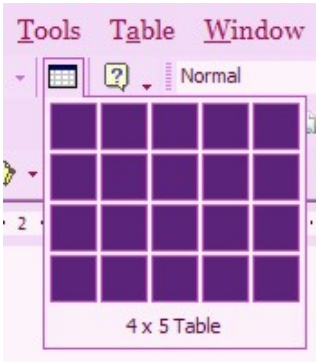
10 minutes
Individual work
Items needed for exercise: laptop, first draft of your paper

Using the first draft of your document:

1. Spell check the document.
2. Grammar check the document.
3. Find examples where the same word appears more than once in a sentence or paragraph and find a suitable alternative using the Thesaurus.

8. Making a table

Tables are a good way to present related information in an easy-to-read format. However, be very careful not to use too many tables in your paper, as this would then make the paper more difficult to read and the information difficult to digest (the same applies for diagrams and figures). Also make sure that your tables have introductory sentences or paragraphs, drawing the readers attention to particularly interesting aspects of the data. Also before in mind that the data presented must be good quality and correct. A table can help you present your data, but if you have not put measures in place measures to collect valid and reliable data, there is no point in presenting it in your paper.



In general, a simple table is easier to read. Some writers make their tables overly decorative; this can be confusing and makes work for editors, designers and DTP further down the line. Unless there is a specific reason to do so, DO NOT use fancy formatting. Let's look at some of the basics of table-making:

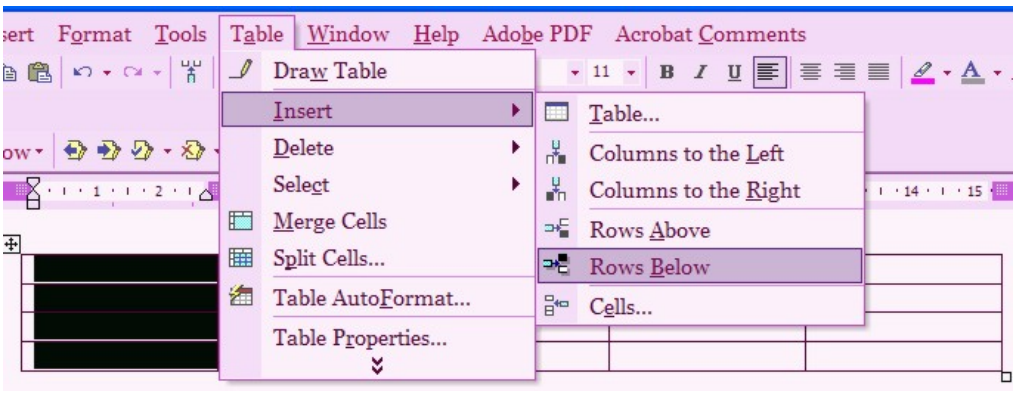
To begin, place your cursor at the correct position in your document. Then click the 'Insert Table' button on your tool bar, select the number of rows and column by highlighting the mock table, then click on one of the selected squares. Your table will appear in the correct position, with columns and rows evenly spaced. You might want to add more rows or columns than the 'Insert Table' button allowed. To do so, select:

Table
Insert

Choose whether you want to insert columns to left or right and rows above and below. If you want to add many more rows or columns, highlight the correct number of rows or columns in your table, then select:

Table
Insert

When you have the correct number of columns and rows you are ready to enter information onto the table (you can always add more rows or columns later if you have miscalculated).



Start by entering the Column names, as follows:

Column 1 name*	Column 2 name	Column 3 name	Column 4 name

* Group heading for row names

Then enter the Row names, as follows:

Column 1 name	Column 2 name	Column 3 name	Column 4 name
Row 1 name			
Row 2 name			
Row 3 name			
Row 4 name			

To make you table clearer, bold and centre Column names, and bold the Row names, as follows:

Column 1 name	**Column 2 name**	**Column 3 name**	**Column 4 name**
Row 1 name			
Row 2 name			
Row 3 name			
Row 4 name			

You can then enter the information in the table, using the normal font. Note the following justification conventions:

- text should be left aligned;
- numbers should be centred; and
- money should be right aligned.

For example:

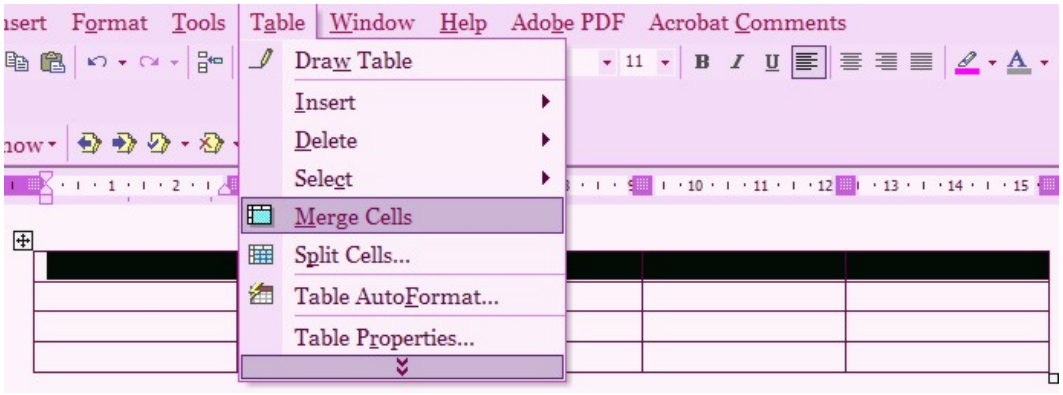
Column 1 name	Column 2 name	Column 3 name	Column 4 name
Row 1 name	Text	000	US$000.00
Row 2 name	Text	000	US$000.00
Row 3 name	Text	000	US$000.00
Row 4 name	Text	000	US$000.00

For a simple table you do not require any further formatting. Publishers will implement more elaborate formatting if they wish to do so. However, you may need a more complicated table than the above example, for example if there are different sections to the table. You should still keep formatting to a minimum to make reading easier. Here's an example:

Column 1 name	Column 2 name	Column 3 name	Column 4 name
Table subsection 1			
Row 1 name	Text	000	US$000.00
Row 2 name	Text	000	US$000.00
Row 3 name	Text	000	US$000.00
Row 4 name	Text	000	US$000.00
Table subsection 2			
Row 5 name	Text	000	US$000.00
Row 6 name	Text	000	US$000.00
Row 7 name	Text	000	US$000.00
Row 8 name	Text	000	US$000.00

As you can see, the subsection headings are in a merged cell. To merge cells, select the cells you wish to merge, then select:

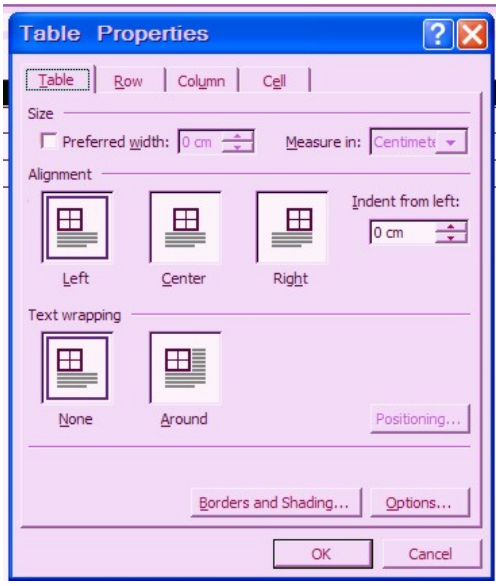
Table
Merge Cells

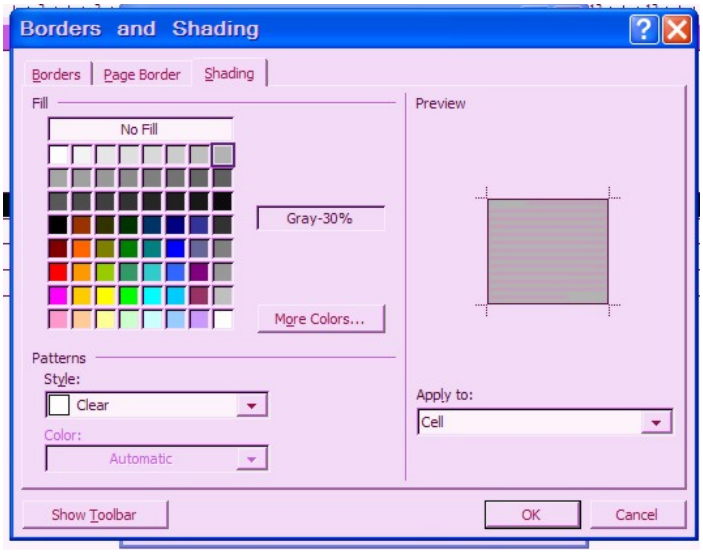


The merged cells are also shaded on the above table. To shade cells, select:

Table
Table Properties…

Then press the Borders and Shading… button.





Select the Shading tab and from the colour menu, select the shade you wish to use. On the Apply to: pull-down menu, select 'Cell'. Then hit 'OK', 'OK' and the correct cell will be shaded.

All your tables, figures and diagrams should be labelled and numbered, as follows:

Table 1: Health worker incentives in East and Southern Africa

If you sourced your tables, figures or diagrams elsewhere, remember to get permission to use these, and include the source beneath the table of figure and in the reference list. For example:

Table 1: Health worker incentives in East and Southern Africa

(Source: EQUINET, 2007)

9. Making figures

Depending on the type of figure, you may want to use a program other than MSWord to create your figure. Usually, to create a graph or pie diagram, it is best to use MSExcel, so we'll briefly cover that in this section. You can create a diagram or a flow chart using MSWord, although you might consider using a program specifically for making graphics. In this section, we will explain how to make diagrams and flow charts in MSWord.

9.1 Creating a graph in MSExcel

To start making a graph, open MSExcel. If it opens automatically to a new document, you are ready to begin. If not, select:

File
New…
Blank Workbook

To begin creating your graph, in Cell A1 enter the name for the X-axis of your graph, and in Cell B1 enter the name for the Y-axis of your graph, for example:

	A	B
1	Countries	% population
2		
3		
4		
5		
6		

Now, starting in Cell A2, and working down the column enter the names you wish to appear on the X-axis of your graph, for example:

	A	B
1	Countries	% population
2	Country 1	
3	Country 2	
4	Country 3	
5	Country 4	
6	Country 5	

Starting in Cell B2, and working down the column, enter the numbers corresponding to each field in column A, for example:

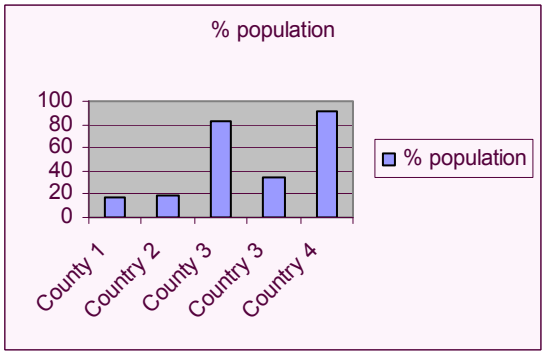
	A	B
1	Countries	% population
2	Country 1	17.5
3	Country 2	19.7
4	Country 3	82.9
5	Country 4	33.8
6	Country 5	92

Double check you have entered the numbers and text correctly, with no misspelling or typos. To create the graph now, select:

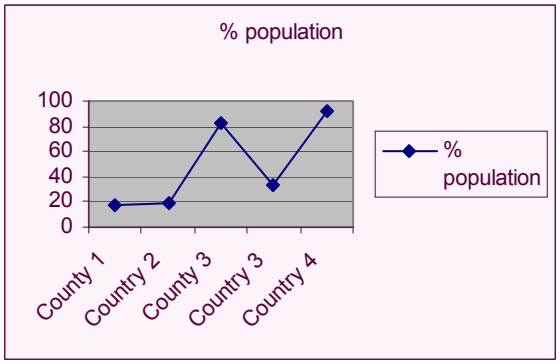
Insert
Chart…

A new window will open, in which you can select different types of graphs and charts. To make a line graph or bar graph, select an option in the left hand column, choose from the images in the right hand window, then click Finish. Your graph will appear in your MSExcel Sheet. For example:

Bar graph

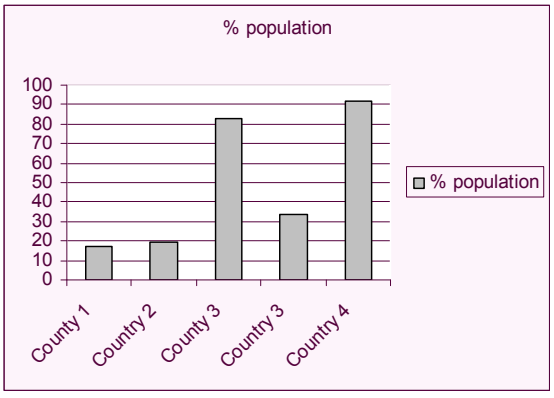


Line graph

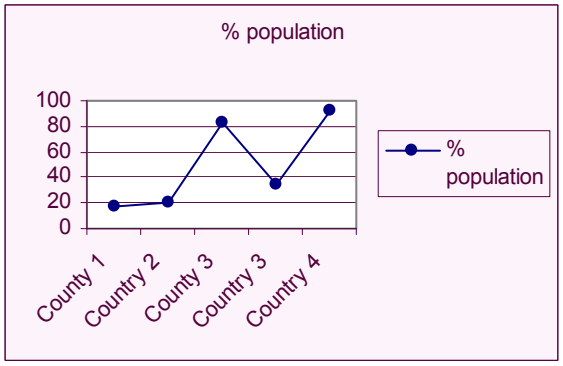


To change the fonts or colours of your graph, click on each item in turn, and change the image. For example, if you don't like the grey background, right click on the background with your mouse cursor, and select the colour you would prefer for the background (remember the printing will probably be in black and white, so it is better to select shades of grey for your graph). For example:

Bar graph



Line graph



You can also change the fonts and the position of the title and key, by right clicking on them with your mouse and selecting relevant options.

9.2 Creating a pie-chart

Creating a pie-chart is not much different, but you must check that your figures add up to 100%, as each piece will be a slice of the pie. For example:

	A	B
1	Region	% world wealth
2	North America	55
3	Europe	31
4	Asia	8
5	Australia and South Pacific	4
6	South America	1
7	Africa	1
8		

Note: These percentages are for example only; they are not accurate.

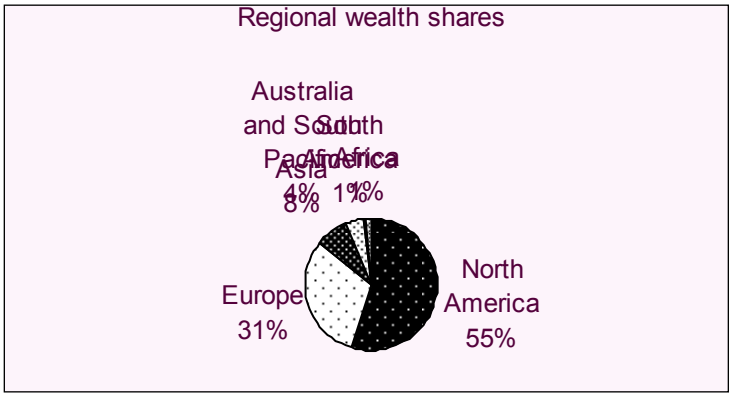
To check the figures are accurate, put your cursor in Cell B8 and click the ∑ button on the toolbar, then press Enter (↵). If your data equals 100%, your spreadsheet will look something like this:

	A	B
1	Region	%world wealth
2	North America	55
3	Europe	31
4	Asia	8
5	Australia and South Pacific	4
6	South America	1
7	Africa	1
8		100

Remember to delete the '100' before you proceed, as it should not be part of your chart. To create your pie chart, select:

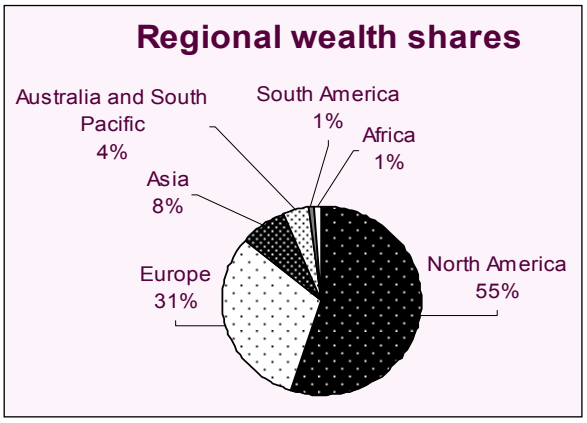
Insert
Chart…
Pie (in the left column)

Then select the Custom Types tag and select B&W Pie. You'll get something that looks like this:



You will need to edit the pie-chart, by selecting text blocks and moving them so you can read them. You may also prefer to edit the kinds of shading to use on the different section of the pie to make for easier reading. To do this you select the relevant slice, right click on it with your mouse, and select Format Data Point…

You can then select from the colour and pattern options to make the pie-chart clearer, for example:



In the next exercise, you can practise making bar graphs, line graphs and pie charts.

Exercise 3.3

40 minutes
Pair work
Items needed for exercise: laptop

Work through the exercise below:

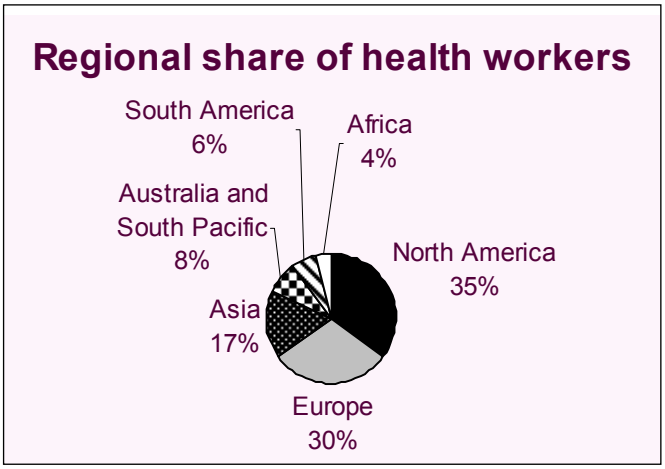
1. In MsExcel, make a line graph and bar graph, using the information below:

(Answers to this question are in *Appendix 1*.)

	A	B
1	Country	GDP (US$ millions)
2	Zambia	90
3	Angola	50
4	Namibia	180
5	Malawi	25
6	Lesotho	30

Note: These figures are for example only; they are not accurate.

2. Using MSExcel, make a pie-chart that looks like this:



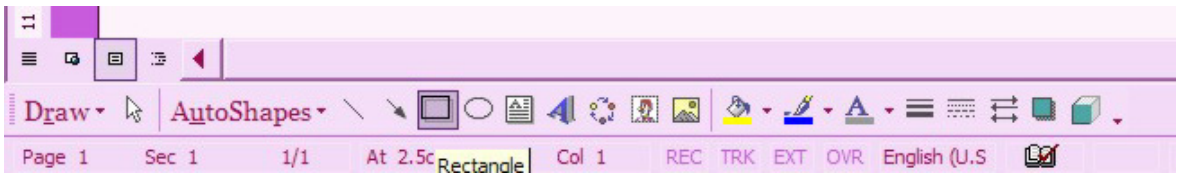
9.3 Creating a diagram in MSWord

To create diagrams and flowcharts, make sure your Drawing toolbar is switched on (it appears at the bottom of your MSWord window). If the Drawing toolbar is not switched on, select:

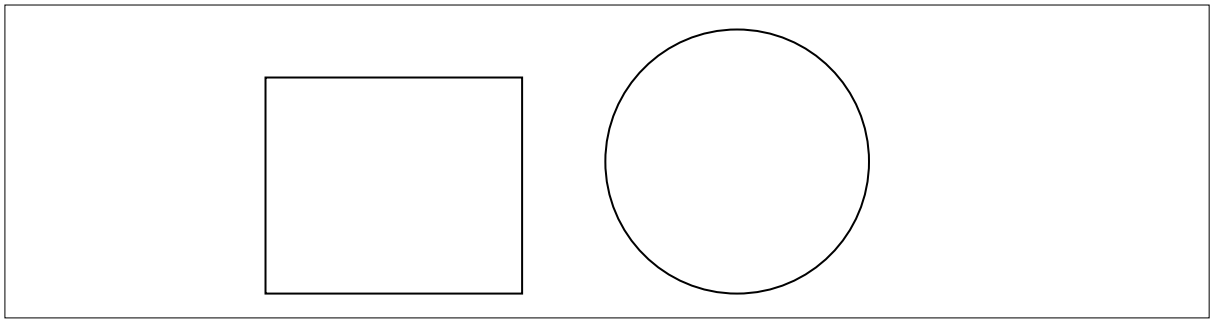
View
Toolbars

Make sure there is a tick next to the 'Drawing' option by clicking on it.

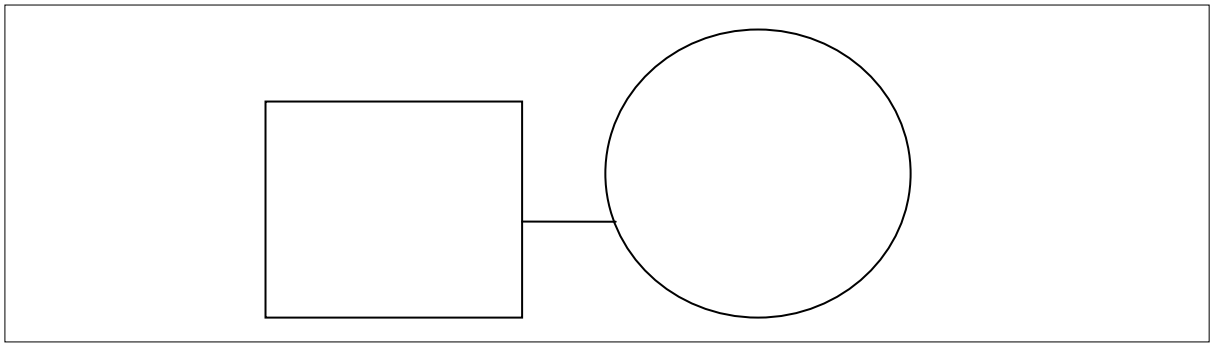
For example, we are going to make a simple set of boxes and circles, with some text and arrows. First, press the ☐ icon on the drawing toolbar. A big square will appear on your page, with the words: 'Create your drawing here'. Click inside the frame with the + cursor, and holding down the left mouse button, drag the cursor to create a rectangle. Select the large frame again, then select the ◯ button on the drawing toolbar. Hold your cursor inside the frame to draw a circle, by pressing the left mouse button and dragging.



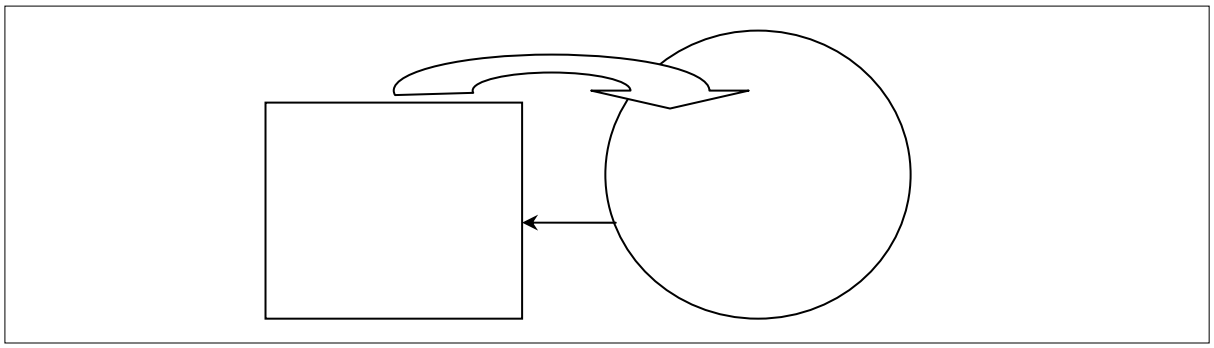
For example:



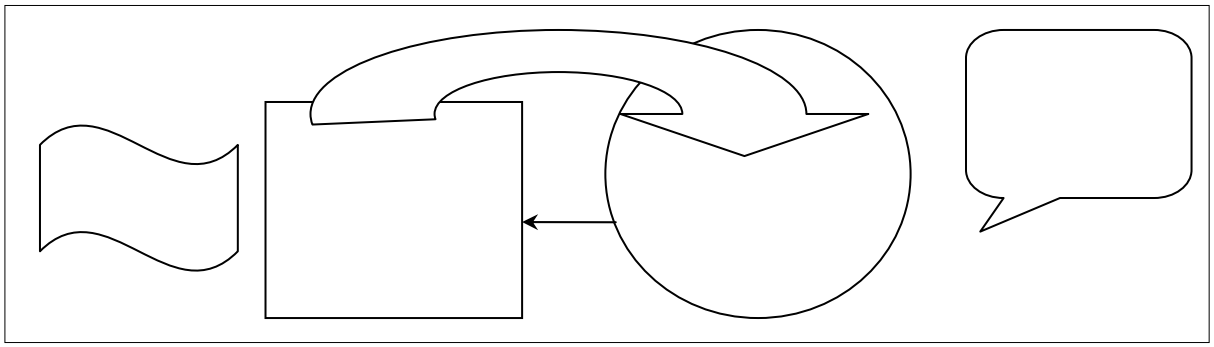
You can then join the two shapes with lines, lines with arrowheads or block arrows. Select the frame again, then to make a line select the \ icon on the drawing toolbar and place your cursor on the right margin of the rectangle; hold down the left mouse button and drag a line across to the left of the circle. For example:



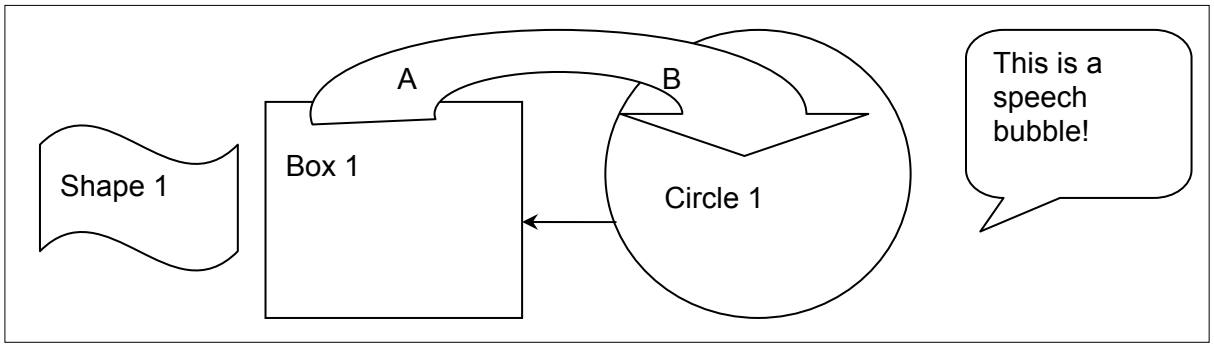
You can make line arrows to join the boxes in a similar way, by selecting the frame, then selecting the symbol. You can also change the line and arrow style, by selecting the arrow or line and right clicking on your mouse. Then select Format AutoShape… Using the Begin style: and End style: options, you can choose the line appearance. For example, if you select to begin with an arrowhead, you can change the appearance of your line as follows:



You can also make arrows between shapes by selecting the frame, then selecting the AutoShapes ▾ button, and selecting a block arrow shape. Using the cursor and holding down the left mouse button, you can then create your block arrow. You can add other shapes in a similar way from the AutoShapes ▾ button menu. For example:



Once you have placed all the shapes and arrows you need in the correct positions, you can add text. Simply click on each shape, then click with the right mouse button and select Add Text. Your shape will then become a text box; a cursor will appear inside the shape and you can type text. You can also select the font name and size in the usual manner. For example:

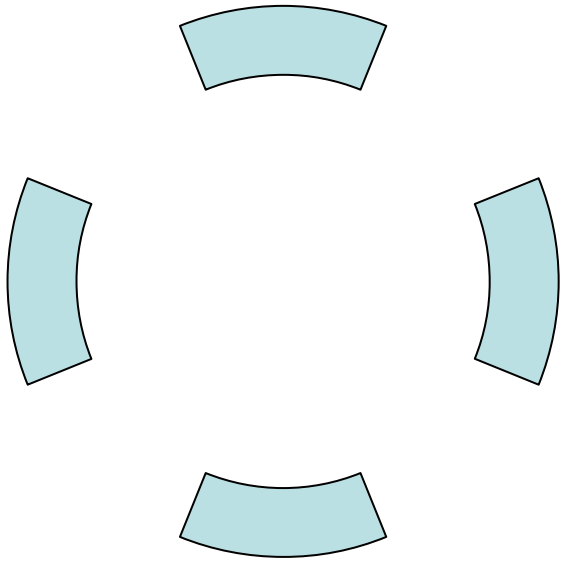


If your shapes aren't quite the right size for your text, you can edit them and the rest of the picture by selecting shapes you want to change and placing your cursor on the corner or margin icons, then holding down the left mouse button, drag to correct the size.

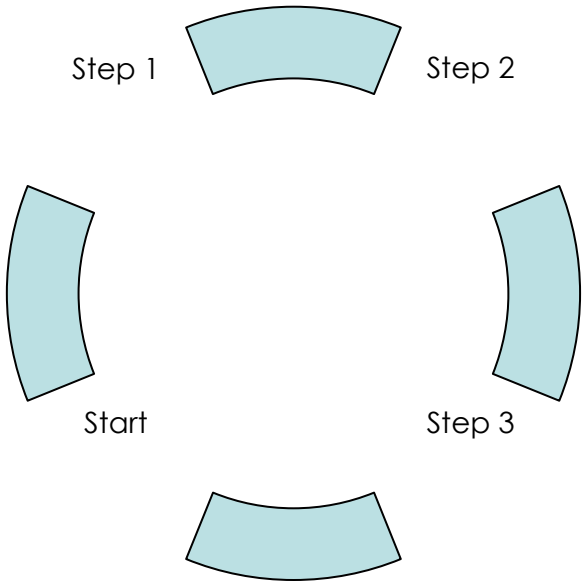
You'll use the skills from this section again in creating a flowchart.

9.4 Creating a flowchart in MSWord

A flowchart is a special kind of diagram, showing flow from one item to the next. To create, click on the icon on the drawing menu and select the type of chart you want to draw from the pop up list window. For example:



You can add extra sections by selecting the diagram and clicking Insert Shape. You can add text by clicking on the text boxes and typing in the text, for example:



Don't format the chart more than necessary with decorative fonts or colours; remember the publisher will make your diagrams decorative if they wish!

Label and number your figures and diagrams, and include the source if they were published elsewhere.

10. Creating bulleted and numbered lists

Numbered and bulleted list are excellent tools for breaking up long sentences, or listing related pieces of information. Let's look at how to make a bulleted list first:

10.1 Bulleted lists

To create a bulleted list, type the text of the main introductory sentence with a colon at the end. For example:

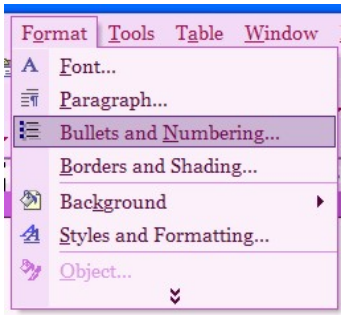
Evidence shows that non-financial incentives improve health worker retention when:

Then write each point on a separate line, with appropriate punctuation, for example:

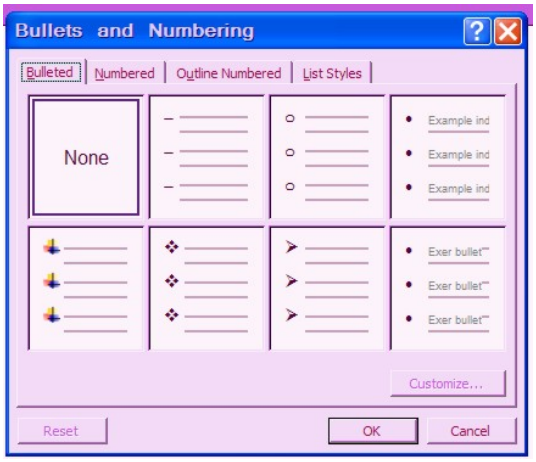
Evidence shows that non-financial incentives improve health worker retention when:
all stakeholders participate in a consultative planning process;
health managers create long term strategic plans;
governments provide adequate national public financing; and
donors support national budgets, rather than specific projects.

Now select the points using your mouse (be careful you don't select the introductory sentence). Then create the bullet list by selecting:

Format
Bullets and Numbering…



A new window will open. Click on the Bulleted tag if it is not already selected. Look at the bullet options and select the most appropriate, by clicking on the box. Press the Customize… button, and in the windows, type in the spacing options, as follows:

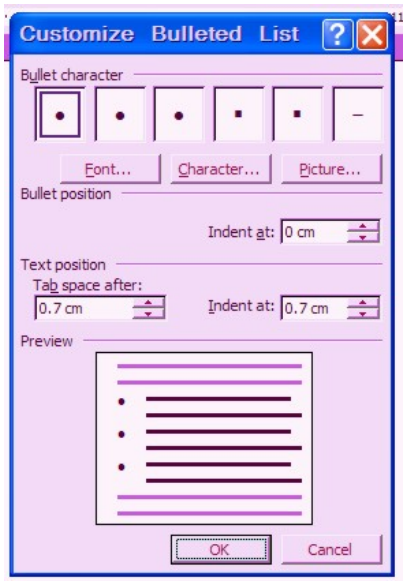


Bullet position
Indent at: 0cm

Text position
Tab space after: 0.7cm
Indent at: 0.7cm

Then click OK.

Your list will then appear as follows:



Evidence shows that non-financial incentives improve health worker retention when:

- all stakeholders participate in a consultative planning process;
- health managers create long term strategic plans;
- governments provide adequate national public financing; and
- donors support national budgets, rather than specific projects.

If the indents for your bullets or text do not come out correctly, your tab setting may be out. Select the bulleted list, then go to **F**ormat, then Tabs. Click on 'Clear all' and then set your tabs, making sure your tab alignment is left. Then press OK. The bullets and text should now align correctly.

10.2 Numbered lists

Numbered lists are similar to bulleted lists, but are normally used to indicate the sequence of information or number of steps. To create your numbered list, first type the introductory sentence with correct punctuation, for example:

There are several steps in the process of creating numbered lists, as follows:

Then on a new line for each point, write the list contents, for example:

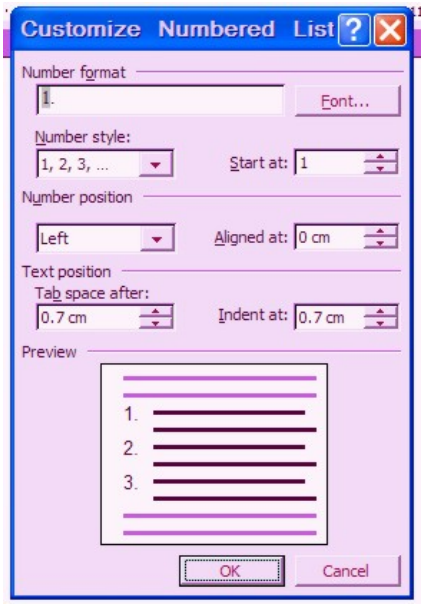
There are several steps in the process of creating numbered lists, as follows:
Write the introductory sentence with correct punctuation.
Write each new point on a new line with a full stop at the end.
Select the text of all the points.

Once you have written all the points, select the text, then click:

Format
Bullets and Numbering…

A new window will open. Click on the Numbered tag if it is not already selected. Look at the numbering options and select the most appropriate, by clicking on the box. Press the Customize… button, and in the windows, type in the spacing options, as follows:

Number position
Aligned at: 0cm
Text position
Tab space after: 0.7cm
Indent at: 0.7cm



Then click OK. Your list will then appear as follows:

There are several steps in the process of creating numbered lists, as follows:
Write the introductory sentence with correct punctuation.
Write each new point on a new line with a full stop at the end.
Select the text of all the points.

11. Footnotes and endnotes

In general, avoid using footnotes, as they can be a formatting nightmare! Do not use footnotes for your citations, but rather include the author name and date in brackets in the actual sentence cited. Footnotes and endnotes can be used if you want to elaborate more on a point made in the text, to give your reader more non-essential information. However, in most cases they are not necessary: if the information is essential include it in the relevant paragraph, and if it is not essential, consider leaving it out all together!

If you do decide to use footnotes or endnotes, keep it to a minimum!

To create a footnote, press CTRL ALT F on your keyboard, holding down all the keys at the same time. You can then type in the footnote in the relevant place, as follows:

Place your cursor where you want to include a footnote in the text[1].

[1] Insert your footnote here

The correct numbering for footnotes and endnotes will be generated automatically.

You can create endnotes in a similar way. Press CTRL ALT D on your keyboard, holding down all the keys at the same time. The endnote list will appear at the end of your document, and you can type the relevant information there, as follows:

Endnotes are numbered in the text...[i]

[i] ... and appear on the last page of the document. Type your endnote here!

12. Creating a table of contents

Most documents longer than a few pages need a table of contents to help the reader navigate. In MSWord, you can automatically generate a table of contents *if* you have used the style sheet heading levels. The first step in making your table of contents is therefore to highlight relevant

headings and mark them as 'Heading 1', 'Heading 2', 'Heading 3', etc. Practice making a table of contents in the next exercise:

Exercise 3.4

20 minutes
Pair work
Items needed for exercise: laptop, your draft

1. Open your draft paper on your computer memory stick. Mark up your headings with various heading levels 'Heading 2', 'Heading 3', 'Heading 4', etc. using the EQUINET Style Guide in *Appendix 2* as a guide Usually a table of contents only has two heading levels, but you can decide for yourself. Follow the instructions below to create your table of contents in the correct place.
2. Place your cursor below the heading 'Table of contents' on the second page.
3. Select 'Insert' from the main menu.
4. Select 'Reference' from the drop down list
5. Select 'Index and Tables…' from the pop out menu, which opens a new window.
6. Select the 'Table of Contents' tab at the top of the window.
7. In the 'Show levels' option, insert the number '2' for two heading levels.
8. Click on the 'Options' button; this will open a new window.
9. In the new window, there are list of styles in the EQUINET document. You need to put a tick next to the style options you want to be in your table of contents. For this EQUINET document, you only want 'Heading 1' and 'Heading 2' to be listed on the table of contents. So make sure that only those options are ticked on the style list, i.e. uncheck other boxes.
10. Next to 'Heading 1', type the number '1' and next to 'Heading 2' type the number '2', as this tells the program how these headings should appear on the table of contents.
11. Make sure there is a tick mark next to the option 'Table entry fields', then click 'OK'.
12. In the 'Print Preview' window you should now see a sample of what your table of contents will look like. If you are happy with that, click 'OK'. If you want to make changes to the font sizes or styles, you can click on the 'Modify' button and set up styles in the same way that you created paragraph styles for your template.
13. A table of contents, shaded in grey, with all page numbers inserted should now appear on the page below the 'Table of contents' heading. If there appear to be errors in your table of contents, it could be because the styles in your document are set incorrectly. Go to the relevant pages in the document and correct styles as needed.
14. To correct the existing table of contents, right click on it and select 'Update Field'. When a new window opens, you can choose to 'Update page numbers only' or 'Update entire table', depending if you simply changed the page number or if you changed the wording and styles of headings. Once you have made your selection, click 'OK' and the table of contents will update.

13. Creating a list of tables and figures

You can create a list of figures and table in your document in a similar way. To do so, instead of selecting 'Heading 2' and 'Heading 3' in step 8 above, simply select 'Figure head' style or 'Table Head' (for the EQUINET template) and type '1' next to it. Make sure no other styles are selected. Then follow steps 10 to 12, and a list of figures or tables will be automatically generated.

Use your new word processing skills, or lose them!

Module 4:
Getting feedback and revising your drafts

1. Overview

If you have worked through the exercises in *Modules 1*-3, you should have completed your first draft. Now you are ready for possibly one of the most difficult parts of the writing process: showing your writing to another person and getting feedback on it, in order to improve your paper further. In this module, we will learn about the feedback process, and develop your skills to improve your writing. In the exercises, you will:

- practice some important aspects of writing, including: language levels, sentence structure, paragraph structure and grammar; and
- have the opportunity to work on your writing project.

Outcomes

When you have worked through this module, you will have:

- received feedback on your writing;
- tackled some key writing difficulties;
- compiled a list of references that you used in your first draft;
- edited your own writing; and
- improved your first draft.

2. Getting feedback on your draft

Most writers find it nerve wracking to ask for feedback. None of us likes to be judged or criticised. And yet, if you learn to take constructive criticism well and apply it, you can learn a lot and improve your writing in the process. Feedback is important for writers because without it they cannot be sure they are communicating well. All texts leave the reader some room for interpretation, but you definitely don't want to keep your reader guessing. Apart from the broad picture of whether a text is understandable or not, if you seek feedback, you should get input on specific points. These should help you to improve the structure and wording of your writing, and you might also get more ideas that will improve on or emphasise your key message.

When you get feedback on your document, remember that you are **not** obliged to adopt all the suggested changes. You have the final say. If the feedback is largely negative, this may mean you need to do much more work before your piece is ready for submission. Sometimes you may feel overwhelmed by negative feedback; you might despair thinking that you will never get it right. But keep positive, rise to the challenge and set about making the improvements to the best of your ability. Remember that people are usually more sensitive to negative feedback than positive feedback, so the feedback might not be as negative as your first reaction suggests. If you feel the feedback was mostly negative, ask the reader if they have any positive feedback so that you can apply the positive across all areas of your document. And remember:

There is always room for improvement!

If you don't understand some of the feedback, ask questions and request to check back with the person on specific points later. You may strongly disagree with some of the feedback, but don't argue about it – instead, note any points you think of to support your argument, as these can be used to strengthen the key arguments in your document.

After you have received the feedback, thank the person who gave it. They took time to read and think about your writing, and were also probably concerned not to hurt your feelings. You need to maintain a good relationship with them so that you can consult them again regarding their feedback, or if you want to ask them to read a later draft.

Read your document again, and decide which feedback you think valid and which you disagree with. Make notes as you read, then leave the document for a few hours and let your mind rest before tackling rewriting. While you rest your mind, you may find yourself mulling over some of the points and think of ways to improve your text. If you think you might forget these fresh ideas, keep a notebook handy and write them down.

Typically, you can expect feedback on:

- style and grammar;
- clarity of message;
- overall structure;
- inappropriate content and gaps;
- logical argument;
- logical conclusions; and
- specific problem areas.

You need to tackle each of these issues in turn. For example:

- If there are many style and grammar issues, work through the points in this module again and polish up your language, sentence and paragraph structure.
- If your key message is not clear, you may need to bring it out more in the text.
- The person giving feedback might suggest how to improve the structure so that the message becomes clearer. If you restructure, remember to renumber figures and table appropriately and check that the references to these are correct.
- If there is unnecessary material in your document, you can cut it out.
- If there are gaps in the content, you may need to refer back to your research or read more literature in order to fill the gaps, then write new material.
- If you have not communicated the logic of your argument well, focus on building more links between the different levels of argument.
- Similarly, if the person giving feedback disagrees with your conclusions, you might need to reconsider their validity or you might to develop your argument better so that it is clearer how you came to those conclusions.
- Only focus on specific problems when you have tackled the broader problems. Some specific problems might be resolved once you've tackled broader problems, but if they aren't you should be able to resolve them more easily once you have dealt with broader issues.

Tackle rewriting in a systematic way – don't try to address all problem areas at once! Work on one set of problems before moving onto the next, as you can otherwise get muddled and lose the thread of what you are trying to achieve. Your document may need extensive rewriting or it might only need polishing. Whatever the case, make sure you set enough time aside to make all the necessary changes.

Remember to acknowledge anyone who gave valuable and constructive criticism that led to improved writing. Acknowledging someone in writing is a good way to show gratitude and respect!

If you want to submit your manuscript to a peer-reviewed journal, read about types of editorial feedback in *section 4.3* in *Module 5* and tackle all of the problems listed *before* you submit your manuscript!

3. Editing your first draft

You have probably heard the expression: 'Writing is one percent inspiration and 99 percent perspiration!' Some people view writing and editing as separate processes; some writers think editing is the editor's job, but writing and editing go hand-in-hand. Good writers will always edit

their own work. Editing probably costs writers the most perspiration. Far from just being a job for the editor, in the editing process, a writer really gets down to the nuts and bolts of writing.

If you leave editing up to your editor, the editor is likely to misunderstand the information and your argument. Even a good editor cannot remedy major factual errors, muddled explanations or poorly structured writing. Therefore, as the writer, it is your job to ensure you communicate your arguments and ideas effectively. The editor should not need to guess what the writer means; the piece must be clear **before** you send it to the editor.

Every piece of writing you undertake has limits in terms of the form it can take; even creative writing has certain rules and conventions that cannot be broken, as the conventions convey particular types of information. Every type of writing has traditions, rules and limitations. For example, in poetry, across languages and cultures there is a shared consensus about what constitutes a poem, 'rules' we all agree on but that are difficult to define. These 'rules' are limitations but we have incredible creativity and variety within those limitations. Scientific writing is no different in this regard. Writing within the limitations, while also expressing passion and creativity is in fact 'the craft of writing'. And at this level, writing rises from being purely functional communication to being an art form.

When you decide to write, to be a writer, you are deciding to be an artist as well as a scientist. And like any craft, it takes time to hone your skills, practice the skills, grow and develop them. None of us ever perfects the art of writing; it is a process. In each new draft, we strive to improve, sometimes making big leaps and sometimes small changes. But ultimately, the art of writing happens at the level of words and grammar. To craft your writing, you need to develop a deep relationship with vocabulary; you need to be constantly updating your vocabulary and growing your vocabulary and you need to work with the 'rules' of language so that your reader has an easier time understanding what you are trying to convey.

Think about and try out new vocabulary – and language comes ALIVE.

The craft of writing also happens on the level of grammar. Most people have a phobia about learning grammar … but when you have a deep understanding of grammar and a deep relationship with grammar, you can **play** with your writing.

So word **choice** and grammar really bind together to make the difference between a functional piece of writing and a creative one. As a writer you will always have to make choices; decision-making is a major part of writing well. Firstly you must decide the focus of your writing, and then you choose what to put in and what to leave out, what is essential and what is not. You have to choose between words, between sentences, between sentence structures, paragraph structures. And once you have written your first draft, you choose what to keep and what to throw out. Do not be afraid to throw it all out and start again, you will have learnt something in the process of writing the first draft, and you will learn something new again in writing the second, third, fourth, fifth and sixth drafts: each time, working at a deeper and deeper level, each time focusing on different details and each time polishing your writing more and more.

Editing, word choice and grammar are the key ways to polish a piece of writing. Use the word processing and computer skills you developed in *Module 3* to help you refine the editing process and write better. Editing is important because it is the only way for writers to check that writing is:

- intelligible and accessible;
- well-structured;
- not marred by spelling errors;
- grammatically correct; and
- correctly referenced.

Writing should always be lively, never dull.

We have already discussed accessibility and structure in *Module 1* and *2*. In the next sections, we will discuss vocabulary and grammar, which form a significant part of the editing work writers must undertake.

Much of English grammar has not changed over time, though many writers **unintentionally** break the rules, sometimes in ways that confuse readers.

So, in the following section, we'll show you some examples of common grammatical errors that make for confusing and difficult reading:

- poor choice of words:
  - starting sentences with the same words;
  - starting sentences with 'this', 'those', 'these', etc, when it is not clear which preceding item the word stands for;
  - repeatedly using the same word, instead of a synonym or pronoun; and
  - using the incorrect word.
- sentence structure, including:
  - passive voice; and
  - 'leg-of-the-table' rule;
- redundancy, including:
  - noun-phrases/nominalisation instead of verbs;
  - use of the wrong verb;
  - leg-of-the-table constructions;
  - stating the obvious; and
  - meaningless phrases; and

4. Vocabulary

Carefully chosen vocabulary is an important feature of accessible writing. Even if you are writing for an academic audience, wordiness, using a complex word when there is a simpler alternative and jargon can make your writing inaccessible. If there is a choice between a difficult word and a simpler one, it is much better to choose the simpler one. Writers can replace most commonly used difficult words with simpler words. Typically, the more syllables a word has, the more difficult it is to read. Therefore, to write accessibly, use short words that are easy to read and understand. However, don't use too many short words, as this can sound condescending. Instead, base your choice of words on understanding the literacy level of your reader and on necessity (i.e. is there a simpler word you can use?). In some cases if you can't think of a single simple word, it may be better to use one complex word than a string of easy words.

In writing scientific papers, you usually need to use technical terminology; however, writers often choose complex or long words unnecessarily. This can sound pompous and makes a text unapproachable by the reader. You can generally communicate much more effectively with the reader by making simpler word choices.

In the next exercise, we'll look at common examples of complex words which can be replaced with a simpler word:

Exercise 4.1

30 minutes
Group work
Items needed for exercise: lists of words

In groups, look at the words in LIST 1 below and find the simpler alternative in LIST 2.

LIST 1

Group 1:

1. the majority
2. linkages
3. additional
4. a need for
5. apparent
6. approximately
7. as a consequence of
8. assist
9. attempt
10. beneficial
11. combine
12. component

Group 2:

13. concur
14. consequently
15. currently
16. customary
17. demonstrate
18. despite the fact that
19. dominant
20. emphasise
21. establish
22. exclusively
23. facilitate
24. for the purpose of

Group 3:

25. for the reason that
26. frequently
27. illustrate
28. in case of
29. in most cases
30. in relation to
31. manner
32. numerous
33. objective
34. option
35. predominant
36. principal

Group 4:

37. prior to
38. proportion
39. provided that
40. reduce
41. require
42. sufficient
43. that being the case
44. utilise
45. utilisation
46. with respect to
47. with regard to
48. commence

LIST 2

Group 1:

most part help need about because links more helpful, useful mix, join clear try

Group 2:

agree commonly stress although main show only so help show now to

Group 3:

goal, aim because choice about many mostly often show main if main way

Group 4:

if before part start/begin enough about/for need use about/ for if use cut

Note: *The answers to this activity are in* Appendix 1.

(*Adapted from*: Plain English Campaign, 2001)

To ensure that you are not using these complex words unnecessarily in your paper, search for each term in *List 1*, and if you find them, replace them with the correct word in *List 2*.

Good writers carefully choose every word they use. Although this may be difficult for new writers to achieve, with practice it becomes second nature. Choosing appropriate yet varied words keeps writing lively and, therefore, engages the reader. Some examples of poor word choice include:

- **Starting sentences and/or paragraphs with the same words:**
  When many sentences or paragraphs start with the same word, writing becomes flat, monotonous and boring, making it difficult for the reader to concentrate. You can replace repetitive patterns in sentences and paragraphs by rearranging a sentence (while staying within structural rules) or you can use a *synonym*.
- **Repeatedly using the same word, instead of a synonym:**
  English writers are fortunate because there are often several synonyms for any given word. If you find yourself repeating the same word, you should look for a synonym in a Thesaurus. You can even use the Thesaurus function in MSWord, as described in *Module 3*.
- **Starting sentences with 'this', 'those', 'these' etc:**
  Only in a few cases is it acceptable to start sentences with the words 'this', 'those', 'these', or even 'it'. In most cases, these words confuse the reader because it is not always clear what you are referring to, especially if you overuse these words. Rather make clear to the reader what you are referring to.
- **Using archaic forms of words:**
  Don't use forms of words that are no longer in modern use, such as whilst, thus, hence and amongst. The modern forms are while, therefore, so and among.
- **Using the incorrect word:**
  Sometimes writers use a word that they believe to mean one thing, while it actually means something else, or it means the opposite. This is often the case with more complex words. Check your use of complex words in a dictionary to ensure you have chosen the correct word!

Once you have made sure you are using appropriate vocabulary, you can further polish your writing by checking the grammar.

5. Grammar

Correcting grammar is the biggest chunk of editing work that you will do on your piece of writing. Grammar refers to the **structure of language**. In writing, grammar is about the structure of sentences. Different languages structure sentences differently, and there are rules about sentence structure for every language. But language rules change over time, and they can also be broken in some instances. They describe how people use and understand language at a particular time; they do not force language to take a particular form. Use grammar rules as a guide to help you write in an understandable way, not to limit your creativity.

Rules were made to be broken, but good writing only breaks rules when it is unavoidable to do so.

To ensure that your writing is accessible, you need to check your grammar and correct any errors. Grammar is not intended to constrain writers, but to make the reading experience easy. All writers, no matter how experienced, will make grammatical errors in writing drafts. Therefore, it is essential for all writers to check their grammar after writing each draft. When checking your own grammar, begin by checking that you have used the correct sentence structure.

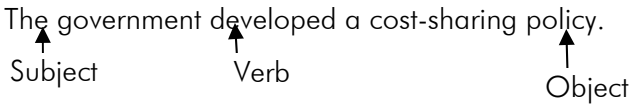
In the next section we will highlight some of the features and structures of English sentences:

5.1 Sentence structure

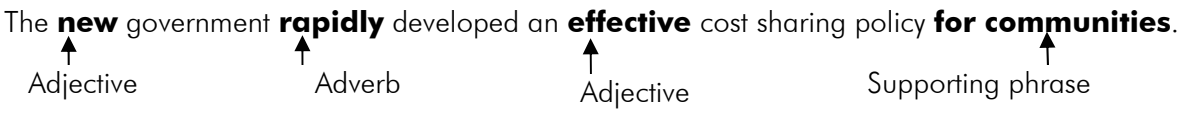
Most sentences can be broken down into sections called **phrases** or **clauses**. When you write sentences, be careful how you order the phrases and clauses so you don't confuse the reader. Let's find out more.

5.1.1 Word order in a sentence

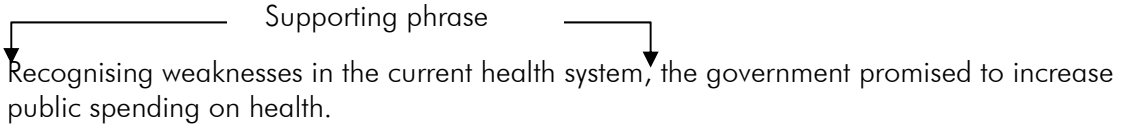
A simple sentence is easy to read and understand. It has a simple word order, made up of a subject, a verb and an object, for example:



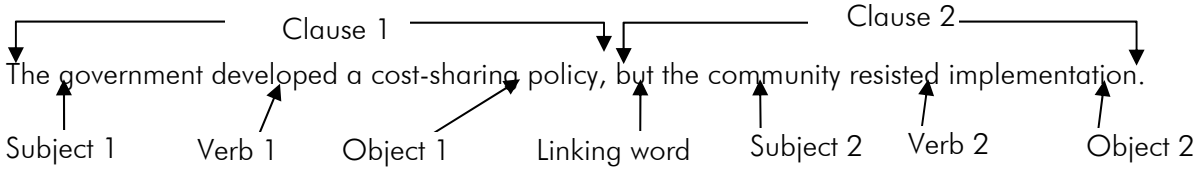
Simple sentences are not always short sentences, but the structure is always the same. In addition to a subject, object and verb, a simple sentence can also have describing words (adverbs to describe verbs and adjectives to describe the subject and object), as well as supporting phrases, for example:



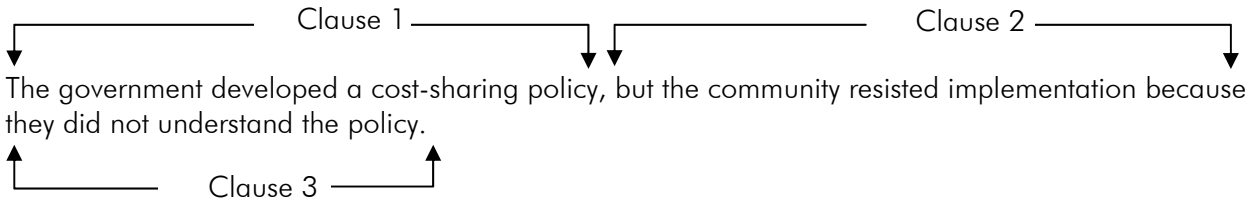
Supporting phrases may also be at the beginning of a sentence, for example:



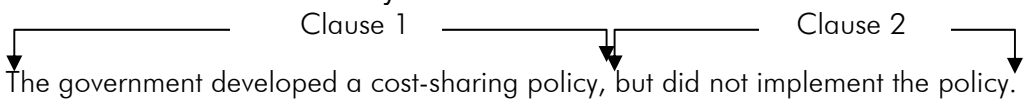
As you may have noticed from above, phrases don't have to have a subject, verb and object. A clause is different: it normally includes a subject, verb and object. A simple sentence has only one subject, verb and object (i.e. only one clause), but complex sentences will have more than one clause, joined by a linking word, for example:



Note that the word order for *Clause 2* is the same as the word order for a simple sentence. *Clause 1* is the **main clause** and *Clause 2* is the **secondary clause**. Some sentences have more than one secondary clause, for example:



However, sometimes the subject of a secondary clause is left out because the secondary clause has the same subject as the main clause. In the example below, 'the government' is the subject for the main clause and the secondary clause:



Phrases and clauses are the basic building blocks of sentences, so it is important that you understand how to use them

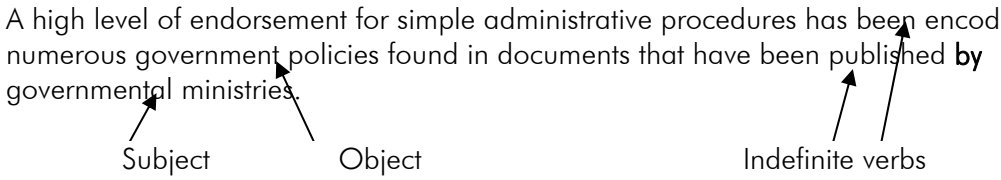
When sentences are written correctly, we usually call this '**active voice**'. However, because it is more acceptable in spoken language, writers often fall into writing sentences in '**passive voice**'. You have probably heard the term 'passive voice', and know you should avoid writing in passive voice, but you may not know how to correct it. In the next section we'll learn more about this common writing error, when it is acceptable to break the 'rule', and how to fix it in your writing.

5.1.2 Passive voice

Many writers have heard the term 'passive voice', know they should avoid it, but do not really understand what it is or how to fix it. In a 'passive voice' sentence, the word order is altered; for example:

- the object and subject of a sentence are swapped around (i.e. object, verb, subject); or
- the sentence has no subject.

Sentences written in 'passive voice' are often confusing; look at this example:

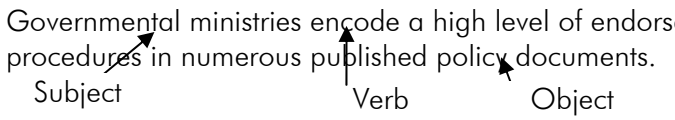


Most readers would have difficulty understanding this sentence. In this sentence, the writer switched the positions of the subject and object. This is typical of 'passive voice' sentences. As in the above example, other features that you can use to identify passive sentences are as follows:

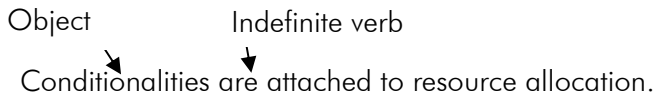
- The word 'by' appears before the subject.
- Indefinite verbs are used instead of finite verbs.

Leaving aside other errors in the sentence quoted above, let's move the subject and object around:

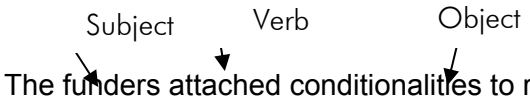
Example 4.1



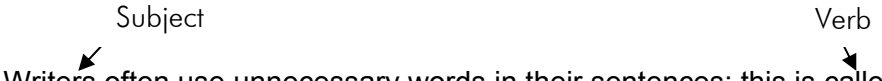
We will look at how to further simplify this sentence later in this module. Now let's look at an example of a passive sentence that has no subject:



It is unclear from this sentence **who** attached the conditionalities, because the subject is missing. To make the sentence clearer, the writer should identify the subject, for example:



In some **rare** cases, it is acceptable to use passive voice, for example, in the second clause of the sentence below there is no clear subject, i.e. no one knows who coined the term 'redundancy'; it is simply a definition:



5.1.3 Long sentences

Sentences with three or more clauses are usually too long, and can be broken into two or more sentences. No matter what the reader's literacy level, long sentences are difficult to read; sentences should be fifteen to 25 words long, and should rarely be longer than 30 words. If a sentence has more than 30 words, it should usually be broken into two or more sentences. Also, by varying sentence length, you will make your text dynamic and easy to read.

As in *Example 4.1 below*, long sentences tend to have:

- unnecessary words and phrases;
- too many clauses in one sentence;
- too many **conjunctions** (words like 'and', 'but', 'because', etc.); and
- too many verbs and **indefinite verbs**: indefinite verbs have words like 'to', 'are', 'is' and 'have been' before the main verb, and/or end with **'-ing'**.

Example 4.2

Refer to the explanation below to identify the verbs, unnecessary words and phrases, conjunctions and clauses in the following sentence:

> [**In order to improve** access to social services] including water, [*and* **to implement** development *and* the right to water], Tanzania, [**like many other developing countries have been developing**], **from time to time**, [**is writing** policies *and* **introducing** several initiatives] **for the purpose**.

EXPLANATION: *Example 4.2* has four unnecessary words/phrases, which are in **bold**; five verbs (two indefinite verbs), which are **grey**; three conjunctions, which are in *italics*; and four clauses, which are in square brackets [ ].

You could cut the sentence in several ways, for example:

> Tanzania has introduced several initiatives to improve access to water and other social services, and to implement development and the right to water.

We removed all unnecessary words and phrases from the sentence, cut the number of verbs and clauses, and replaced indefinite verbs with **finite verbs**. Can you see how the shorter sentence is easier to read and understand?

Long sentences sometimes result from listing a number of related items. If there is a long list of items, rather create a bulleted list, as these are easier on the eye and break information down into digestible chunks, while making a link between the points. For example:

> Evidence shows that non-financial incentives improve health worker retention when:
> - all stakeholders participate in a consultative planning process;
> - health managers create long-term strategic plans;
> - governments provide adequate national public financing; and
> - donors support national budgets, rather than specific projects.

Be cautious when you use bulleted lists

Note however, that some writers **overuse** bulleted lists. They should be used sparingly, and as far as possible, you should rather break up sentences into smaller chunks. Writing should never be a long series of bulleted lists, as when they are used sparingly they are easy on the eye, but when overused, they are tiring to read, confusing and difficult to digest! Some journals insist that authors should not use bulleted lists, so check the author guide of any journal before submitting a document with bulleted lists.

You can use the grammar function in your word processing program, as described in *Module 3* to search for passive voice and long sentences, and then make corrections.

5.1.4 The leg-of-the-table rule

The leg-of-the-table rule states that you may only use an apostrophe and 's' to denote possessive form when you are referring to **people, animals, plants and other living things**. The rule gets its name from the fact that you may **not** write 'the table's leg'; the correct form is 'the leg of the table'. Please note that the rule does not apply when you are discussing commercial businesses, organisations (like governments and NGOs) and other groups, for example, communities and countries, because they consist of people. For example, you may write about the US military's involvement in the war in Iraq, the council's decision to disband and Anglo-American's plans to take over Africa.

You can greatly improve your writing by paying attention to sentence structure

Exercise 4.2

1 hour

Individual work

Items needed for exercise: laptop, your draft paper

Using the grammar check in your word processor, find and correct any errors in sentence structure. Focus on correcting passive voice and long sentences.

6. Redundancy

Writers often use unnecessary words in their sentences; this is called 'redundancy'. Redundancy takes many forms, including:

- noun-phrases (also called *nominalisation*) instead of verbs;
- using the wrong verbs;
- phrases that state the obvious; and
- phrases that do not add to the reader's understanding/meaningless phrases.

To be clear, always avoid redundancy!

Let's look at these different types of redundancy in more detail.

6. 1 Nominalisation

Nominalisation is a common problem in academic writing; it occurs when writers use noun-phrases instead of verbs, for example:

The implementation of the project will be problematic.

OR

The government is involved in **the investigation of** claims about occupational health and safety.

OR

The management of HIV/AIDS is the responsibility of the government and the individual.

OR

TAC forced the government to start **the distribution of** ARVs.

In all these examples, the words in bold are 'noun-phrases'; they should be verbs, as follows:

Implementing the project will be problematic.

OR

The government is involved in **investigating** claims about occupational health and safety.

OR

Managing HIV/AIDS is the responsibility of the government and the individual.

OR

TAC forced the government to start **distributing** ARVs.

You can easily spot some nominalisations because many of them end with *–tion* or *–sion*. They also often include the word 'of'. Other common nominalisations include:

- **utilisation of**, which you can replace with **using**;
- **introduction of**, which you can replace with **introducing**;
- **make an agreement** on, which you can replace with **agree** on;
- **completion of**, which you can replace with **completing**; and
- **with reference** to, which you can replace with **referring** to.

(Adapted from: Plain English Campaign, undated)

The sentence in *Example 4.1* also contains nominalisation:

> Governmental ministries encode **a high level of endorsement** for simple administrative procedures in numerous published policy documents.

In this sentence the noun phrase 'a high level of endorsement' creates confusion. The sentence is clearer as:

Example 4.3

> Governmental ministries encode and **endorse** simple administrative procedures in numerous published policy documents.

Removing nominalisation helps keep writing simple!

To check for nominalisation in your own writing, simply search for the word 'of' in the text and check that you are using it correctly, and only where necessary.

6.2 Using the wrong verb

Good writers not only choose the simplest way to communicate their key message, they also choose the most powerful. Since verbs are the words in a sentence that carry the action of a sentence, they carry a lot of power, so when you use them, make sure that you use the right verb! Ask yourself 'What **action** is being performed in this sentence?' For example:

> The relevant legislation makes reference to the use of condoms and other safe sex practices as a way of effecting a reduction in the spread of HIV.

The correct verb is **refer**, because the action in the sentence is **to refer**, not **to make**. Likewise, safe sex practices are **reducing**, not effecting (causing). The sentence should read:

> The relevant legislation refers to condom use and other safe sex practices as a way to reduce the spread of HIV.

Here's another example:

> The government has an obligation to carry out the distribution of anti-retrovirals to all those who are in need of the life-saving drugs.

It should read:

> The government is obliged to distribute anti-retrovirals to all who need the life-saving drugs.

Can you see how the examples with the correct verbs are shorter, more direct and, therefore, more powerful? The meaning of the sentences with the incorrect verbs can be lost as the reader tries to work out exactly what is happening in the sentence (the action). So how do you know when you've used the wrong verb? Well, there is a general pattern: a short verb, like 'give' or 'make', followed by a noun (which should actually be the verb). Typical examples include:

- give an instruction to (instruct);
- give proof (prove);
- give recommendations (recommend);
- give a boost (boost);
- do/carry out the administration of drugs/services (administer drugs/services);
- effect a reduction in, bring about a reduction in (reduce);

- make use of (use);
- make a generalisation (generalise);
- make an assumption (assume);
- make a suggestion (suggest);
- make a deduction (deduce);
- do/conduct research in (research); and
- have doubt/suspicions that; have regrets about (doubt/suspect that; regret).

Watch out for short verbs like 'make', 'give', 'do', 'effect' and 'have'

You can easily check for wrong verb forms in your writing by search for 'make', 'give', 'do', 'effect' and 'have' and replacing incorrect verbs where necessary.

6.3 Stating the obvious

Writers sometimes state the obvious when they are unsure whether their readers grasp implicit information, or when they use too many similar words with similar meanings. Refer back to *Example 4.3*:

> Governmental ministries encode and endorse simple administrative procedures in numerous published policy documents.

You could rewrite this sentence more simply:

> Numerous government policy documents endorse simple administrative procedures.

Most readers would understand that policy documents are published, that ministries are typically responsible for government policy, and that policies 'encode' various norms. Therefore, you do not need to state these points. Even if a reader did not know all this information, the sentence can stand alone and is simpler to read.

6.4 Meaningless phrases

In spoken language, we sometimes include meaningless phrases. The speaker can convey meaning through tone of voice, gestures and emphasis. The listener will tend to concentrate on the key message, and may not even notice meaningless phrases. But in writing and reading, meaningless phrases can cause confusion.

Precise language is more important in writing than speaking.

Some common meaningless phrases include:
- the fact that;
- in order to;
- for the purpose of;
- at the end of the day; and
- together with.

Along with meaningless phrases, poor word choice can make reading confusing.

Exercise 4.3

40 minutes
Individual work
Items needed for exercise: your draft manuscript

Work through you draft manuscript and remove redundancy, including:
- nominalisations;
- the wrong verbs;
- stating the obvious;
- meaningless phrases; and
- poor word choice.

7. Gender sensitivity

Grammar rules on gender sensitivity are a good example of how English grammar has changed in the last 50 to 60 years. Let's look at gender sensitivity in more detail. In English, a pronoun is a word that can be used in the place of a noun. Pronouns may also have gender, e.g. he or she. Before the struggle for women's rights, 'people' were commonly referred to as 'Man' or 'mankind', and the pronouns 'he', 'him' and 'his' were used to refer to single, non-gender-specific subjects, for example:

If your baby is sick, **he** might be listless and have a poor appetite.

OR

If your baby has diarrhoea, give **him** a salt and sugar water drink.

OR

If a bottle-fed baby suffers from colic, you should try changing **his** formula.

In the 1970s and 80s, those trying to write in a more gender-sensitive way, often used awkward sentence constructions, such as:

If your baby is sick, **s/he** might be listless and have a poor appetite.

OR

If your baby has diarrhoea, give **him/her** a salt and sugar water drink.

OR

If a bottle-fed baby suffers from colic, you should try changing **his/her** formula.

Since the 1990s, some language practitioners introduced simpler, gender-sensitive grammar, like:

If your baby is sick, **they** might be listless and have a poor appetite.

OR

If your baby has diarrhoea, give **them** a salt and sugar water drink.

OR

If a bottle-fed baby suffers from colic, you should try changing **their** formula.

However, not all language practitioners – e.g. editors – agree with this formulation. Journals will usually NOT list their preferred approach to gender sensitivity in the publication guidelines. Therefore, make sure you read through a few of the articles in the journal and see how the editors and other authors handled this issue!

8. Spelling mistakes

Writers' today have no excuse for poor spelling if they have access to a word processor. As discussed in *Module 2*, you can set your word processor to automatically check spelling. However, many writers forget to spell check their documents before submitting for publication.

If you haven't spell checked your document, it isn't ready for publication!

Some spelling errors creep into writing because the writer has used a word that exists, but that is incorrect in the context. Some common typographical errors and misspellings include:

- 'form', when you mean 'from';
- 'their', when you mean 'there', or visa versa;
- 'except', when you mean 'accept', or visa versa;
- 'should of', 'could of', 'would of', when you mean 'should have', 'could have', 'would have'; and
- 'effect', when you mean 'affect', or vice versa.

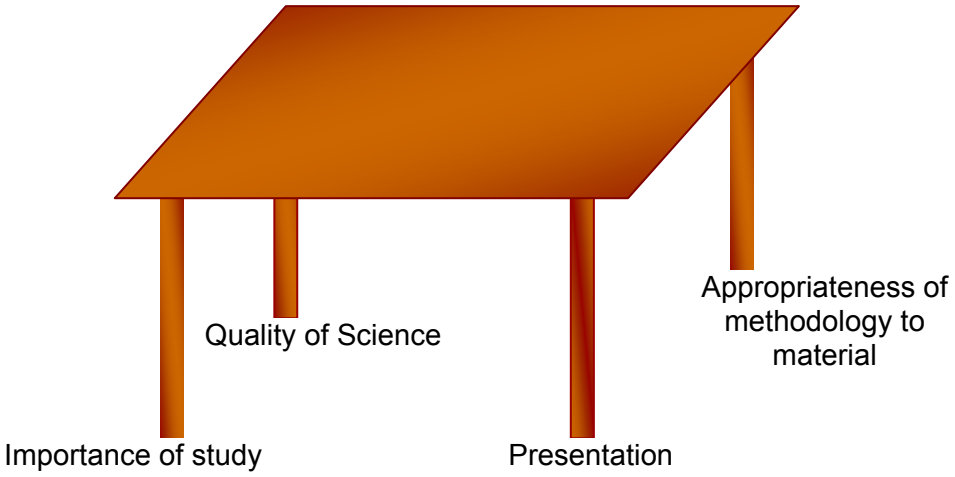
If you have used any of these words in your document, carefully check that you have used the correct word form in the correct instance. Modern word processors sometimes highlight these words for you, but you can use the 'find' function in your word processor to find these words and correct as necessary.

9. Getting ready for publication

Journal editors are often asked what the most important criteria are for getting their papers accepted for publication. We have already talked about the importance of getting the style right, getting the tone of your writing right, and ensuring your have structured your paper correctly. But your paper will not be ready for publication unless it has addressed:

- the science must be correct;
- the chosen research methodology must be appropriate to the material;
- the study must be important or significant; and
- the presentation must be good.

We can liken a paper to a table standing on four legs. Without any one of the legs, the table would not stand. Strengthening one leg will not make up for weakness or absence of another. Similarly your paper will not stand up to editorial scrutiny unless you have paid attention to each of these four components:



Source: Prof Malcolm Molyneux in EQUINET, 2007.

Suggested reading

1. EQUINET (2007) 'Regional training workshop on writing skills,' *Meeting report, Lilongwe Hotel, Lilongwe Malawi, 20-24 October 2007*. TARSC: Harare.
2. Plain English Campaign (2001) *The A to Z of Alternative Words*. Plain English Campaign: High Peak, UK, accessed on 15 August 2007 at: http://www.plainenglish.co.uk/alternative.pdf
3. Plain English Campaign (undated) *How to Write in Plain English*. Plain English Campaign: High Peak, UK, accessed on 15 August 2007 at: http://www.plainenglish.co.uk/howto.pdf

Module 5:
Publishing and peer-review

1. Overview

In the previous sections, we've discussed how to write and structure your scientific paper, how to deal with feedback and how to edit your drafts. Once you have written your paper, you will most likely wish to get it published. In general, peer-reviewed journals publish scientific papers. In this module, we will discuss the submission and publishing process.

Outcomes

In this module, you will learn about:

- peer-reviewed journals;
- why peer reviewing is important;
- where and how to submit a manuscript;
- the peer review process; and
- the publishing process.

2. What is a peer-reviewed journal?

> *Peer review (known as refereeing in some academic fields) is a process of subjecting an author's scholarly work, research or ideas to the scrutiny of others who are experts in the same field. It is used primarily by editors to select and to screen submitted manuscripts, and by funding agencies, to decide the awarding of grants. The peer review process aims to make authors meet the standards of their discipline, and of science in general. Publications and awards that have not undergone peer review are likely to be regarded with suspicion by scholars and professionals in many fields.*
>
> (*Source:* Wikipedia, 2007)

A peer-reviewed journal is an academic publication in which an independent panel of experts in the field review and assess articles. If the experts do not approve the paper, publishers will not accept it for publication. You can usually identify a peer-reviewed journal by reading (usually at the front or back of the journal): the editorial statements, checking the credentials of the editorial board, and checking the instructions to authors, which might mention that the journal is peer-reviewed (Applied Health Sciences Library, 2004; Brown-Syed, 2000-2003). As stated by Brown-Syed (2000-2003) peer-reviewed journals may be published in print and/or electronically, and 'collections of papers from conferences may be considered peer-reviewed as well, if the original presentations were "invited" or examined by experts before being accepted.'

Peer-reviewed journals are usually printed quarterly, bi-monthly or monthly. They often have a formal format, very little advertising (except for non-profit events and other journals by the same publisher) to protect against commercial bias, with only black and white graphics presenting statistical information. The cover art and layout can also provide clues regarding content (Applied Health Sciences Library, 2004; Brown-Syed, 2000-2003). According to the Applied Health Sciences Library (2004) other identifying features of peer-reviewed journals are that:

- sources are cited with footnotes or a bibliography at the end of the article;
- authors are scholars and researchers in the field and are identified as such;
- the purpose of the article is to publish the results of research; and
- the publisher is usually a non-profit professional organisation or research institution.

2.1 Why peer review, anyway?

Peer review papers contribute to the body of knowledge that forms the evidence on which best practice is based.

(*Source:* McIntyre et al, 2007)

Peer review is considered important because it is rare for authors 'to spot every mistake or flaw in a complicated piece of work … Therefore, showing work to others increases the probability that weaknesses will be identified, and, with advice and encouragement, fixed'(Wikipedia, 2007). According to Brown-Syed (2000-2003), 'no researcher can claim to present "the unvarnished Truth" or "the definitive study". Other scholars must corroborate or refute any work presented.' Experts are more likely to spot flaws or mistakes in a paper than others, so their scrutiny is important to ensure that published research is reliable and credible, and the knowledge is original and substantial (Wikipedia, 2007). Therefore, 'peer reviewing is critical to maintaining quality and standards in publications' (McIntyre et al, 2007). Other researchers should also be able to build on existing research. Grant funding and tenure at academics institutions for authors often depends on publication in a scholarly journal (Wikipedia, 2007).

Peer review and publishing enable knowledge sharing

Peer review can be viewed as:

- a learning exercise to improve the writer's skills;
- pointing to information gaps in the paper so that it could be improved;
- identifying further literature from the field that should be cited in your study;
- enabling knowledge sharing;
- acting as a quality control mechanism for scientific publishing;
- enhancing the researcher's CV; and
- allowing you to access more grants and promotions.

However, snags with the peer review process, include:

- the devastating effect of negative comments;
- misconceptions with the meaning of reviewers comments;
- bias and personal slant from peer reviewers;
- harmonising comments from different peer reviewers can be tricky;
- the referee could be closed to new methodologies, or new ideas – it can be a conservative process; and
- if the referee is a competitor, they could pan your ideas, then steal them (sometimes even unconsciously).

3. Where to publish?

Once you have received feedback on your paper and polished your work, it is time to start looking for a publisher. You may already be familiar with a number of journals in your field. For your submission, choose 'the journal best suited to your work and your message,' and most accessible to the readers you want to influence (McIntyre et al, 2007).

All journals have strict guidelines about the scope of topics they will publish (see section *4.1* below). Before you submit your paper, read recent issues of the journal to get a feel for the writing style and types of articles published. Many papers are rejected because they are not submitted to a suitable journal or because authors did not follow the journal's guidelines' (McIntyre et al, 2007). You can find a list of peer-reviewed journals for your submissions at:

- MEDLINE, http://medline.cos.com/
- CINAHL, http://www.cinahl.com/
- Journals on public health are listed at: http://som.flinders.edu.au/FUSA/GP-Evidence/PHCRED/primary%20health%20care%20journals.html

(*Adapted from:* McIntyre et al, 2007)

Ninety percent of published research has been about 10% of the world's health problems ('the 10/90 gap'), This imbalance is now at last beginning to shift, and many journals are making a concerted effort to publish more African research and more African scientific writing, There are now many new opportunities for Africans writing scientific papers to get published in some of the top international journals, such as *The Lancet*, *JAMA,* the *British Medical Journal*, etc. (Professor M Molyneux in EQUINET, 2007).

Some international journals are also willing to publish different kinds of material, in addition to scientific papers, and may accept opinions, points of view and even poetry. Some of these journals have quick turnaround times. If you have written something you think is original, important or interesting, consider trying a top international journal. You've nothing to lose, and if you aim high, you might be surprised with acceptance (ibid).

General topic journals such as *Tropical Doctor* seek articles which paint a picture of how things are on the ground. The argument and the writing must be good, but the subject-matter need not be at the forefront of molecular science. If you are writing a paper on a particular disease, consider journals that specialise in that condition or discipline – e.g. *The Malaria Journal, JAIDS, etc.* Local and regional journals are also open to publishing on a wide variety of topics, especially if the work has been done locally and is relevant to local health policy or practice. A good place to find relevant titles is on African Journals Online (www.ajol.info) (ibid).

3.1 Electronic publishing and open access journals

> *Open access publishing is the publication of material in such a way that it is available to all potential users without financial or other barriers.*
>
> (*Source*: Wikipedia, 2007c)

> *Open access is immediate and unrestricted online access to digital scholarly material, primarily peer-reviewed research articles in journals […] made possible by the advent of the Internet.*
>
> (*Source:* Wikipedia, 2007d)

Open access journals are available because of the advent of electronic publishing. Electronic journals are similar to print journals, in that:

- they are issued on a regular basis;
- they have editors, editorial boards and editorial advisors;
- suitable submitted papers are sent to referees for comment, and a limited number of articles (five to ten) are published in each issue; and
- published papers have a similar appearance to print publications (adapted from: Roberts, 1999).

Although electronic journals have not entirely replaced print journals yet, almost all scientific journals have established online peer-reviewed journals; some have become entirely internet based (Wikipedia, 2007b). Publication is often delayed in print journals because of time spent on the publishing and printing process, but electronic articles can be published much more quickly: 'Almost all such articles are eventually published in traditional journals, which still provide an important role in quality control, archiving papers, and establishing scientific credit' (ibid).

Electronic publishing benefits authors because they can get their papers out much more quickly and benefits publishers because they can distribute articles more quickly and more cheaply, without the burden of printing costs. Many authors favour open accessing publishing because their publications are freely and electronically available, which increases readership. Open access articles are more likely to be cited than any other form of academic publication (Lawrence, 2001; The Open Citation Project, 2004). Researchers in developing countries often benefit from open access publishing, as university libraries in these countries may not be able to afford the expense of acquiring printed journals.

If you would like to submit your manuscript to an open access journal, you can finding listings of these journals at: www.doaj.org/ and www.openj-gate.org/index.asp.

4. The publishing process

Once you have decided where to submit your manuscript, you are ready to begin the submission and publishing process. There are four steps in getting your paper published in a peer-reviewed journal:

1. Format your manuscript to meet the publisher's guidelines.
2. Submit your manuscript.
3. Answer peer review and editor queries.
4. Correct proofs.

We'll now look at each of these steps separately.

4.1 Formatting to meet the publisher's guidelines

Different journals have different submissions guidelines; always ask for a copy of the guidelines and make sure you reformat your manuscript accordingly. According to McIntyre et al (2007): 'Following these guidelines will not only increase the likelihood of your paper being accepted but will also reduce the time spent preparing your paper for submission.'

These guidelines usually include:

- topics covered by the journal;
- the length of the manuscript;
- the structure of the manuscript, including the length and order of each section;
- headings for each section;
- the citation and referencing style;
- figure and table numbering style;
- the length and style of abstract;
- the number of key words required; and
- the page numbering style.

Always refer to the submission guidelines (such as those listed in *Appendix 3*). Some general formatting rules apply to most submissions, as follows:

- Use double line spacing throughout.
- Use wide margins.
- Include a title page with the title, names of authors (and their contributing organisations/institutions), and contact details for the authors.

Editors may reject an incorrectly formatted paper, without even reading it!

4.2 Submitting your manuscript

Once you are sure your formatting is correct, prepare your submission letter, which should briefly introduce the paper and the authors. Here's an example:

Name of lead author
Street or PO Box address
City and postcode
Country

Name of Editor/The Editor
Street or PO Box address
City and postcode
Country

Date

Dear Editor

The impact on health status of the Community Health Insurance Scheme in Namibia,

In this paper we describe how the health status of Namibians has changed since the introduction of a government-backed Community Health Insurance Scheme in July 2005. We analysed declining patient intake at community health clinics to assess if declining rates result from improved health or declining ability to access health care. The scheme has resulted in improved access to community health clinics, and therefore resulted in improved health status for Namibians.

Enclosed please find:
three copies of the 20,000 word manuscript (printed and on disk);
original artwork and the digital scan on disk; and
three signed declarations from both authors.

We look forward to receiving your positive response to our submission.

Yours sincerely

Prof D Ntotu

Your submission letter will give the editor the first impression of your paper. Therefore it is very important to get it right. There is a tension between providing too much information and being informative. As a general guide:

- Use a descriptive title for the letter, but do not explain that you are submitting and your submission is attached as this is redundant.
- Promote the paper a bit, but do not over explain. Keep it to the point, making a brief compelling statement about the issue addressed in the paper and the importance/ impact of the findings.
- Use personal pronouns in the letter, rather than third person.
- Don't lapse into formal writing; rather use a more journalistic style or conversational style, without being sensationalistic.
- Always read your letter out loud to another person to check if it is easy to read and flows. If you battle to read your own piece to another, it is a sign that the writing does not flow well.
- Do not use words like 'try', 'attempt', 'aim to' … say what you did successfully!
- Editors will most likely reject a submission if you try to manipulate them emotionally or attempt to shove your opinion down the editor's throat.
- Do not attempt to flatter the editor or the journal.
- Do not try to argue your paper, but imagine you are conveying your key message to the lay person.
- Keep it light and immediate.

Before you send off your manuscript, check that you have:

- included your correct address in the correspondence;
- correctly prepared and included all artwork; and
- attached enough copies of the manuscript, table and figures.

Do not staple the manuscript; rather use paper clips, as they will make manuscripts easier to photocopy. Protect all the included artwork and any disks by inserting them in an envelope and sealing the envelope with strong tape. Make sure you address the envelope correctly, with a return address and enough postage stamps. Keep copies of all documents, as papers can get lost in the post. You also need an exact copy to refer to when you receive comments from referees.

> *An increasing number of journals now accept electronic submission of manuscripts, whether on disk, as attachments to electronic mail, or by downloading directly onto the journal website. Electronic submission saves time as well as postage costs, and allows the manuscript to be handled in electronic form throughout the editorial process (for example, when it is sent out for review). When submitting a manuscript electronically, authors should consult with the instructions for authors of the journal they have chosen for their manuscript.*
>
> (*Source:* ICMJE, 2006)

Most journals acknowledge receipt of your paper within a few weeks. If you don't receive acknowledgement of receipt after three weeks, follow up with the publishers via email, fax or phone. Once receipt is acknowledged, it could take up to two months before you hear from the editor again, as a panel of experts will be busy reviewing your paper. After two months, if you haven't heard from the editor, follow up with a polite enquiry.

Let's look at the peer review process.

4.3 The peer review process

Different journals conduct the peer review process differently. There are three main types of peer review:

- In an **open review**, the peer reviewers are known and listed in the acknowledgments.
- In a **blind** or **masked review**, the authors do not know the names of the peer reviewer. This is the most common kind of peer review.
- In a **double-blind** or **double-masked review**, the authors do not know the names of the peer reviewer and the peer reviewers do not know the authors' names (this is fairly uncommon).

If the author instructions and submissions guidelines state that you should submit several copies, with your name on the front page but not anywhere else in the manuscript, it means the journal will use a double-blind peer review (Brown-Syed, 2000-2003). Reviewers are normally anonymous to preserve the integrity of the peer review process. If the paper is 'double-masked' the authorship is hidden in case of bias on the part of the peer reviewers, but:

> *… the process often fails to do so, since certain approaches, methods, writing styles, notations etc, may point to a certain group of people in a research stream, and even to a particular person […] Proponents of double-masked review argue that it performs at least as well as the traditional one and that it generates a better perception of fairness and equality in global scientific funding and publishing.* *(Source: Wikipedia, 2007)*

Peer review can take a long time – in some cases up to a year. Some argue that the peer review process is flawed because when authors put forward 'an unpopular or a truly revolutionary point of view, there may be considerable resistance within the peer group' (Brown-Syed, 2000-2003). Not all journals undertake peer review with equal rigour:

- If a publisher has a lot of funds, they may fund publication of many articles.
- If the publisher receives few manuscripts, the quality may be poor, but they'll be published anyway.
- Some journals may have stringent peer review processes, and will reject papers if they do not present ground-breaking research, even if the article is accurate and well-written.

- 'Screening by peers may be more or less *laissez-faire* [informal and not scientifically rigorous enough] depending on the discipline' (adapted from: Wikipedia, 2007).

All peer-reviewed journals will give peer-reviewers guidelines on what and how to review the manuscript. Let's look at an example of guidelines from the *British Medical Journal* (2007).

Guidance for peer reviewers

BMJ peer reviewers do not have to fill in standard appraisal forms. But we do ask all of them to consider this general guidance:

The manuscript is a confidential document. Please do not discuss this even with the author.

The BMJ now has a system of open peer review. This means that you will be asked to sign your report on any paper we send you. It does not mean that authors should contact you directly; we will continue to ask them to direct any queries through us. Openness also means that we ask reviewers and authors to declare any competing interest that might relate to papers considered by the BMJ.

As a reviewer you will be advising the editors, who make the final decision (aided by an editorial 'hanging committee' for some papers). We will let you know our decision. We will pass on your signed report to the author; please do not make any comments that you do not wish the author to see. Even if we do not accept a paper we would like to pass on constructive comments that might help the author to improve it.

Please give detailed comments (with references, whenever possible) that will both help the editors to make a decision on the paper and the authors to improve it.

For all papers:
Is the paper important? Will the paper add enough to existing knowledge? Does the paper read well and make sense?

For research papers please comment on:
Originality: Does the work add enough to what is already in the published literature? If so, what does it add? If not, please cite relevant references.
Importance of the work to general readers: Does this work matter to clinicians, patients, teachers or policymakers? Is a general journal the right place for it?
Scientific reliability:

- Research question: Clearly defined and appropriately answered?
- Overall design of study: Adequate?
- Participants studied: Adequately described and their conditions defined?
- Methods: Adequately described? For randomised trials: CONSORT style? Ethical?
- Results: Is the research question answered? Credible? Well presented?
- Interpretation and conclusions: Warranted by and sufficiently derived from/focused on the data? Message clear?
- References: Up to date and relevant? Any glaring omissions?
- Abstract/summary/key messages/This Week in BMJ: Reflect accurately what the paper says?

Although peer review may be an imperfect process, according to Brown-Syed (2000-2003): 'peer review is the best mechanism we have to attain scholarly objectivity and to guard against scientific fraud'. The reviewers must all work alone, without communicating with each other about their assessment. Each reviewer evaluates the manuscript, noting flaws, problems and suggestions for improvement. Evaluations also usually include explicit recommendations to the editor on whether or not to publish the paper. The recommendations are usually either to:

- unconditionally accept the manuscript or proposal;
- accept the manuscript, provided improvements are made;
- reject it, but encourage revision and invite resubmission; or

- reject it outright (adapted from Wikipedia, 2007).

The editor is usually familiar with the field of study of the journal, but often not in as much depth as the expert reviewers. They will examine the reviewers' recommendations, then form their own opinion of the manuscript especially in terms of the scope of the journal and its readership. Reviewers' recommendations are merely advisory; the editor may choose not to accept them (ibid).

As the reviewers work alone, they may evaluate the article differently, and if there is no consensus, the editor will make the final decision. Even if the reviewers do agree, the editor may make a different decision. If comments from one reviewer are overwhelmingly positive and comments from another reviewer overwhelmingly negative, the editor may ask another reviewer for an opinion before making a decision (ibid). Once the editor reaches a decision, they will let the authors know if their manuscript was accepted for publication or not, and will also provide reviewer's comments.

To help you understand the peer review process, in the next exercise put yourself in the peer reviewer's shoes.

Exercise 5.1

30 minutes

Pair work

Items needed for exercise: copy of another participant's paper, notepaper and pen

Using the guidelines in the box below from ***Social Science and Medicine*** (2007), examine your partner's paper and provide structured peer review comments on the paper. Write at least one paragraph on each subject heading. Remember not to discuss your input or reflections with anyone else, including the author of the paper.

> Referees are asked to evaluate a manuscript for:
> - originality and significance of contribution;
> - interest to social scientists and/or practitioners;
> - international relevance;
> - coverage of appropriate existing literature;
> - adequacy of methodology, analysis and interpretation;
> - clear, concise and jargon-free writing style; and
> - organisation.
>
> Referees are asked to provide anonymous comments to the author and are also given the option of providing confidential comments to the editor. The comments to the author are also made available to other reviewers of the manuscript.
>
> Referees are not expected to correct or copy edit manuscripts. Language correction is not part of the peer review process.

Would you accept your partner's manuscript for publication? If not, what feedback would you give to the author? If so, what changes would you recommend?

4.3 Dealing with a peer reviewer's comments

In the next communication from the editor, they will tell you if they have accepted your manuscript accepted for publication. Whether or not your manuscript was accepted, the editor will attach the reviewers' comments. If your paper is not accepted, the editor should give reasons for rejection.

Don't be discouraged by an initial rejection - keeping comments in mind, try again

Reasons for rejection might include:

- **Paper is outside the scope of the journal:** There is not much point arguing about this; simply submit to another journal.
- **Paper is incorrectly formatted:** Go back to the publisher's guidelines, reformat your paper, then resubmit.
- **Peer reviewers did not consider your paper to be scientific or your arguments to be substantive:** If you disagree, discuss it with the editor and they might agree to send it to another peer reviewer. But if you fail in this regard, carefully read the comments and see how you could further develop your arguments, provide additional evidence and improve your paper.
- **Paper was not accepted in its present form but you may resubmit:** Although you don't have to agree with all the reviewer's comments, consider them and revise your paper accordingly. If you disagree with some of the comments, you can reject them, provided you strengthen your argument accordingly. Once you have modified your paper, resubmit it, briefly describing the changes you made and noting any points of disagreement.

(*Adapted from:* Fahamu, undated)

Even if the publisher accepts your manuscript for publication and you are feeling happy that your manuscript was accepted, brace yourself before reading the feedback from peer reviewers.

Comments are intended to improve your manuscript, not to undermine you

Ideally, you should read the comments, then put the paper aside for a few days to give you time to digest the feedback and think about how to tackle the criticism. It's up to you to decide what you want to do about the recommendations you have received, but 'having come this far, it makes sense to follow editorial and reviewer suggestions or to argue or explain your position through the journal's communication channels' (McIntyre et al, 2007).

Few papers are accepted for publication without changes being made. Feedback might include:
- **Peer reviewers identified a number of problems with the paper.** You might need to include more data or modify the conclusions, then resubmit. When you resubmit, explain the changes you have made and note points of disagreement.
- **You need to make minor changes and corrections.** Once you have completed these, send them back to the editor, detailing the changes you have made.
- **The paper was accepted in its current form.** Even if this is the case, you will still have to check and correct proofs and be patient until the paper is published.

4.4 Correcting proofs

Once the publisher has accepted your paper in its final form, they will work on the design and layout. As each stage of layout is complete, you will need to proofread and correct the proofs. Carefully check that no errors have crept in during design and layout, that you are satisfied with the layout and that there are no spelling or typographical errors you missed in previous drafts. Check:
- spelling and grammar;
- all data and headings on tables and figures;
- any other measurements or scientific terms; and
- every word matches the original manuscript.

Especially when checking tables, figures and other measurements, it's a good idea to get help; the helper can read one version of the manuscript aloud, while you read and compare the other version. Mark any errors on the latest draft, preferably using a red pen (never pencil). Also read the manuscript again quickly, checking for sense – the meaning should be clear and the argument logical. **Do not** make substantive changes at this stage, as this is costly and time-consuming.

It can take up to two years before an accepted manuscript is published, depending on the journal's publications cycle. Even so, you can cite your paper in other publications, referencing it as 'in press'. As McIntyre et al (2007) say: *"Publishing in a peer-reviewed journal can be rewarding and effective in contributing to the body of knowledge of best practice in health".*

Suggested reading

1. Applied Health Sciences LIBRARY (2004) 'What is a peer-reviewed journal?' Library Gateway. University of Illinois Urbana Champaign Library: Urbana, Illinois, accessed on 19 September at: http://library.uiuc.edu/alx/peer.htm
2. British Medical Journal (2007) 'Guidance for peer reviewers,' *British Medical Journal*, accessed on 3 October 2007 at: http://resources.bmj.com/bmj/reviewers/peer-reviewers-guidance
3. BMJ (2007) *Welcome to resources for authors*, accessed on 11 October at http://resources.bmj.com/bmj/authors
4. Brown-Syed (2001-3) 'What is a peer-reviewed journal?' Valinor.ca, University of Buffalo: Buffalo, New York, accessed on 19 September 2007 at: http://valinor.ca/peer-review.html
5. EQUINET, University of New South Wales (2004) *Report: Workshop on Writing for Peer Reviewed Journals, Durban, South Africa, June 4-7 2004*. TARSC: Harare.
6. EQUINET (2007) 'Regional training workshop on writing skills,' *Meeting report, Lilongwe Hotel, Lilongwe Malawi, 20-24 October 2007*. TARSC: Harare.
7. Fahamu (undated) 'Publishing – Responding to Editors,' Writing for Change. Fahamu: Oxford, accessed on 11 September 2007 at: http://www.fahamu.org/WFCEng/scitop32.html
8. International Committee of Medical Journal Editors (ICMJE) (2006) *Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication*. ICMJE: Philadelphia, accessed on 3 October 2007 at: http://www.icmje.org/ (Originally published in *New England Journal of Medicine* (1997) 336:309-15.)
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10. McIntyre E, Eckermann SL, Keane M, Magarey A and Roeger L (2007) 'Publishing in peer review journals - Criteria for success,' Australian Family Physician 36 (7): 491–576, accessed on 19 September 2007 at: http://www.racgp.org.au/Content/NavigationMenu/Publications/AustralianFamilyPhys/2007issues/afp200707/200707mcintyre.pdf
11. The Open Citation Project (2004) 'The effect of open access and downloads ('hits') on citation impact: A bibliography of studies.' School of Electronics and Computer Science, University of Southampton: Southampton, England, accessed on 19 September 2007 at: http://opcit.eprints.org/oacitation-biblio.html
12. Roberts P (1999) 'Scholarly publishing, peer review and the internet,' First Monday. First Monday, University of Illinois: Chicago, Illinois, accessed on 19 September 2007 at: http://www.firstmonday.dk/issues/issue4_4/proberts/index.html
13. Social science and medicine (2007) 'Peer review policy statement.' *Social Science and Medicine* accessed on 3 October 2007 at: http://www.elsevier.com/wps/find/journalrelatedinfo.cws_home/315/preface1
14. Wikipedia (2007) 'Peer review,' Wikipedia: The free encyclopedia. Wikimedia Foundation Inc: Florida, USA, accessed on 17 September 2007 at: http://en.wikipedia.org/wiki/Peer_review
15. Wikipedia (2007b) 'Academic publishing,' Wikipedia: The free encyclopedia. Wikimedia Foundation Inc: Florida, USA, accessed on 17 September 2007 at: http://en.wikipedia.org/wiki/Academic_Publishing
16. Wikipedia (2007c) 'Open access publishing,' Wikipedia: The free encyclopedia. Wikimedia Foundation Inc: Florida, USA, accessed on 17 September 2007 at: http://en.wikipedia.org/wiki/Open_access_publishing
17. Wikipedia (2007d) 'Open access,' Wikipedia: The free encyclopedia. Wikimedia Foundation Inc: Florida, USA, accessed on 17 September 2007 at: http://en.wikipedia.org/wiki/Open_access

Module 6:
Writing EQUINET papers

1. Overview

Like any other publisher, EQUINET has its own publications guidelines for authors. These are explained in EQUINET's style guide, but this module presents an overview of key issues.

Outcomes

In this module, you will learn about:

- the different types of EQUINET papers;
- the structure of different EQUINET papers; and
- the format of EQUINET papers.

2. Types of EQUINET papers

There are five basic types of EQUINET papers, which can be found on our website at:

- For policy papers, see http://www.equinetafrica.org/bibl/policy.php
- For discussion papers, see http://www.equinetafrica.org/bibl/discussion.php
- For PRA project reports, see http://www.equinetafrica.org/bibl/discussion.php
- For policy briefs, see http://www.equinetafrica.org/bibl/briefs.php
- For parliamentary briefs, see http://www.equinetafrica.org/bibl/briefs.php

Many of these papers (from 1998 to 2004) can also be found on EQUINET's CD, *Advancing equity in health in Southern Africa*. Before we discuss the different types of papers, complete the exercise below to see if you can spot the differences between them.

Exercise 6.1

30 minutes

Group work

Items needed for exercise: examples of EQUINET papers, newsprint and markers

In your groups, look at the examples of EQUINET papers and, on separate sheets of newsprint, write down the identifying characteristics of each document. Then discuss these questions:

- What are the differences between the documents?
- What are the similarities between the documents?
- Which documents are more accessible?
- Which documents are scientific papers? Why do you think so?

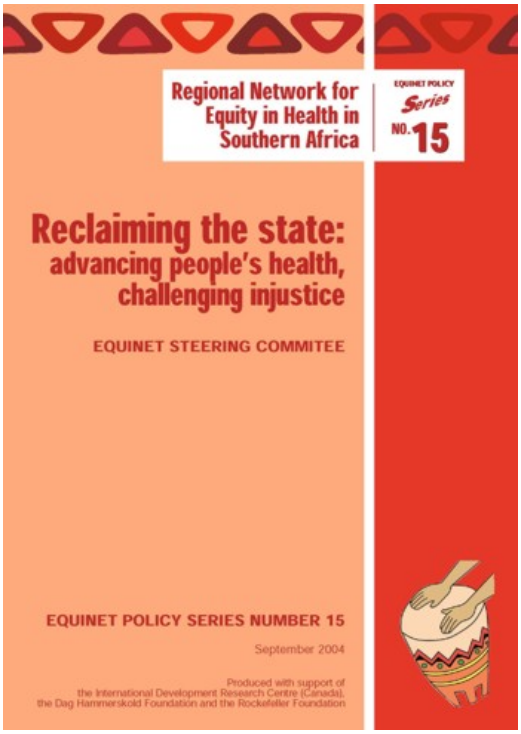
Report your discussions back to the plenary.

2.1 Policy papers

EQUINET Policy papers raise issues for policy attention. The policy papers:

- give a summary of evidence and existing policies, in particular theme areas of EQUINET research; and
- discuss what this means for the way forward, in terms of:

– policies and programme for advancing health equity in the region; and
– research and follow-up actions for key actors, including EQUINET.



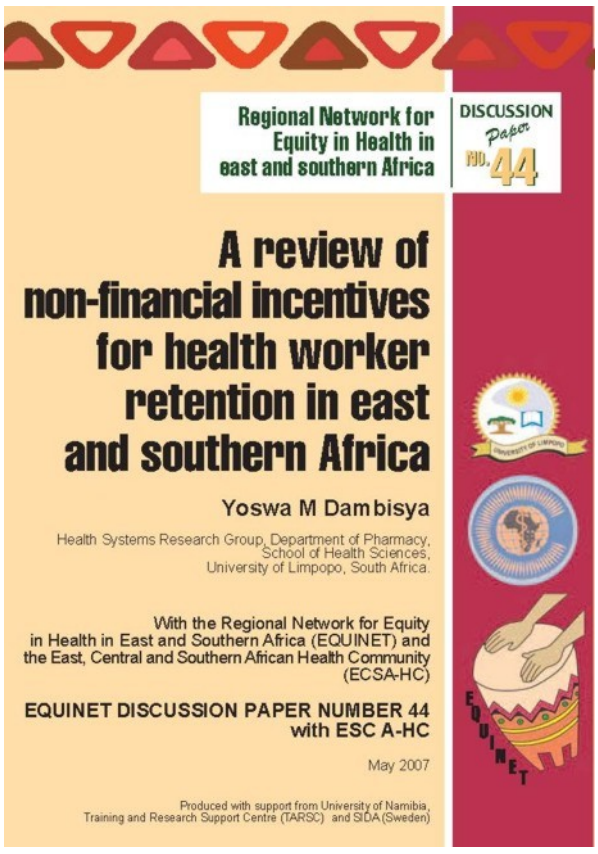
Policy papers serve as a guide for future work and an explanation of the theoretical issues, values and policy principles relevant to equity in health in the region. They explain key issues and options emerging from the theme areas. The structure of a policy paper is influenced by the content, but broadly includes:

- a table of contents, including two heading levels;
- an executive summary (usually 1-1½ pages);
- an introduction (usually 1-2 pages), including:
  – background information; and
  – key challenges addressed;
- a discussion of evidence emerging from research or review (usually about 15-20 pages);
- recommendations and options (usually about 4-5 pages); and
- references (varies in length, but usually 2-5 pages).

To get the referencing style right, you must check the EQUINET style sheet, which is provided at the end of this manual as *Appendix 2*.

2.2 Discussion papers

Discussion papers present research or literature reviews conducted within or commissioned by EQUINET. The discussion papers are similar in structure to other scientific papers, so read through *Module 4* on writing scientific papers in this manual to guide your writing. Usually, EQUINET Discussion papers are no more than 35 pages, although in rare cases they may be longer, depending on the nature of research.



In discussion papers, authors should provide:

- a table of contents, including two heading levels;
- an executive summary, which outlines the purpose of research and key findings (1-1½ pages);
- an introduction (usually no more than 1-2 pages), including:
  – background to research;
  – reason for research;
  – gaps in existing research; and
  – introduction of key terms used in paper;
- research methodology (usually about 1-2 pages, depending on complexity of methodology), including:
  – all methodologies employed in research;
  – methodology used for analysing data;
  – reason for selection of methodology; and
  – flaws in the methodology;
- research results (usually about 10 pages), including:
  – quotes from interviews conducted; and
  – statistical information (including tables and figures);

- discussion of results (usually about 10 pages), including:
  – key messages emerging from research;
  – references to similar research (and whether it supports findings or not); and
  – gaps in the research;
- conclusions and recommendations (usually 2-4 pages), including:
  – a summary of key findings;
  – recommendations to address gaps in the research; and
  – recommendations for taking the research forward, either with further research or with action in the real world; and
- references (varies in length but usually 2-5 pages).

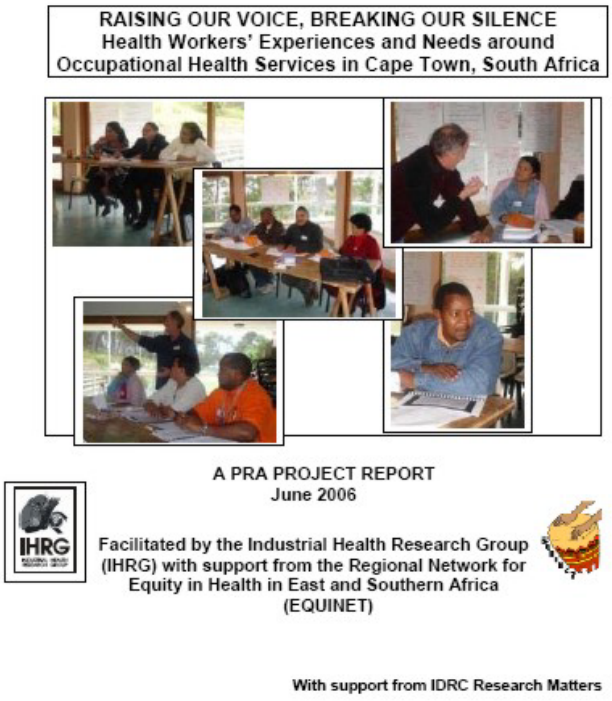
To get the referencing style right, you must check the EQUINET style sheet, which is provided at the end of this manual as *Appendix 2*.

2.3 Reports of Participatory Research (PRA)

Like EQUINET Discussion papers, the PRA papers present research conducted for and funded by EQUINET. However, they are slightly different from Discussion papers in that they focus on reports and research emerging from EQUINET's participatory research.

PRA project reports also present different forms of evidence than EQUINET Discussion papers, such as photographic evidence (including research venues, communities participating in the project and workshop activities) and testimony from research process participants. The project reports provide scientific findings, discussion and conclusions, but **also** report on action phases. The structure is a little different from EQUINET discussion papers, as follows:

- a table of contents, including two heading levels;
- an executive summary, which outlines purpose of research and key findings (1-1½ pages);
- an introduction (usually no more than 1-2 pages), including:
  – background to research;
  – reason for research, including gaps in existing research and problems identified by communities;
  – rationale for using PRA approaches and features of the community involved; and
  – introduction of key terms used in paper;
- methods (usually 2-4 pages), including:
  – introducing the PRA process into the area;
  – the PRA process used and the methods in the process;
  – number and features of participants;
- findings (usually about 10 pages), including:
  – experiences and reflection emerging from the process, often presented with diagrams, charts etc used or produced in the process, as agreed by workshop participants, and any disagreements;
  – actions identified and implemented and any reflections on actions; and
  – findings on changes in perceptions or views before and after the PRA process;
- discussion (usually about 10 pages), including:
  – reflections on research methodologies;
  – actions resulting from workshops;
  – results of actions undertaken as a result of workshops;



  - changes in experience, attitude and actions of participants; and
  - experience of researchers regarding PRA methodologies;
- conclusions (usually about 2 pages), including:
  - summary of key findings;
  - summary of actions; and
  - summary of changes resulting from research; and
- the way forward (usually 1-2 pages), including:
  - further research needed;
  - support for actions needed; and
  - additional actions required.

2.4 Other EQUINET papers

EQUINET produces a range of other publications, including policy briefs, parliamentary briefs, meeting reports (discussed in *Module 7*), toolkits and training materials, equity indicators, resolutions from meetings and conferences, capacity-building papers (from student grant programmes) and a monthly newsletter. Writing for each of these types of publications is slightly different, but will be addressed in modules for this manual that will be developed later.

Let's look at two important EQUINET documents types: policy briefs and parliamentary briefs, which can be found at http://www.equinetafrica.org/bibl/briefs.php

- **Policy briefs:** (above left) These are usually summaries of key policy issues from EQUINET work, the evidence underlying these policy positions, and their practical implications policy. They are targeted at people who have policy development roles.
- **Parliamentary briefs:** (above right) These are one of the newest EQUINET publication types; they were developed at the request of parliamentarians in east and southern Africa. They summarise key issues in particular areas of work (such as fair financing and HIV and AIDS policy), and make recommendations to parliamentarians about what they can do on issues, relevant to their legislative, oversight and representative roles.

3. Format of an EQUINET paper

We have already noted the structure of EQUINET papers at various points throughout this document. Below is a summary of the key issues.

When you write **any** EQUINET paper, you should do the following:

- Write in UK English (check *Module 2* to set the Set Language option in MSWord).
- Use 11pt Arial font for the main body text and check the style guide (see *Appendix 2*) for heading sizes and formats.
- Always include a title page (see below).
- Page numbering should appear in the bottom right of the page, with no number on the title page, but the title page numbered '0'.
- Ensure there are two levels of heading listed in the Table of Contents.
- Do not use footnotes – author and date references should be included in the text.
- References should be numbered and listed in alphabetical order.

As per the style sheet in *Appendix 2*, all EQUINET papers should include a title page, formatted as follows:

- the title of the paper (no more than three lines in 18pt Arial font, bold and centred);
- the authors' names (16pt Arial font, bold and centred);
- the authors' institutions/organisations (14pt Arial font, bold and centred);
- the institutional/organisational logos (authors to supply);
- EQUINET credit (16pt Arial font, bold and centred);
- co-operating organisations (13pt Arial font, bold and centred);
- EQUINET paper number (14pt Arial font, bold, ALL CAPS and centred);
- month and year (14pt Arial font, bold and centred); and
- source of funding (12pt Arial font, right aligned).

The costs and benefits of health worker migration from East and Southern Africa (ESA): A literature review

Rudi Robinson
The North-South Institute

The North-South Institute

Regional Network for Equity in Health in east and southern Africa (EQUINET)

in co-operation with Health Systems Trust (HST)

EQUINET DISCUSSION PAPER 49

August 2007

with support from SIDA Sweden

PRA papers should also include a photograph from one of the PRA activities on the front cover.

In the next module, we'll look at how to write another type of EQUINET document: *EQUINET meeting reports*.

Module 7:
Writing EQUINET meeting reports

1. Overview

Many EQUINET members will have occasion to write a meeting report based on a meeting funded by EQUINET. In this module, we cover some key skills useful for producing all meeting reports, and then present the format of a typical EQUINET meeting report.

Outcomes

In this module, you will learn about:

- the purpose of meeting reports;
- taking notes at meetings;
- editing your notes into a narrative of the meeting; and
- structuring your report for EQUINET.

2. Meeting reports

Exercise 7.1

20 minutes
Group work
Items needed for exercise: newsprint and markers

In your groups, discuss and write on newsprint:

- Who are meeting reports for? Who reads meeting reports?
- Why are meeting reports important?
- What information should be included in meeting reports?
- What are the different stages in producing meeting reports?
- What issues have you encountered in preparing meeting reports?

Report your discussions back to the plenary.

Meeting reports are important:

- for **meeting organisers** to reflect on the meeting process, work completed and issues arising from the meeting, follow up on agreed actions and monitor progress;
- for **meeting participants** to refer to information and data presented at the meeting, remind themselves about work/actions they agreed to do after the meeting, have contact details for other participants they might want to work with, and use as a reference for their work;
- for **those who did not attend the meeting** to find out about what happened at the meeting, what was discussed, and any agreed work they might want to be involved in; and
- as **general records** of work in an area.

As van Ginneken (undated) explains:

Reports are management tools – they share information and guide future actions

Meeting reports vary in style and content. The most formal meeting reports - 'Minutes' - include every word stated by any meeting participant; the least formal reports merely present a list of actions emerging from the meeting, who agreed to undertake those actions and the expected delivery date.

EQUINET meeting reports fall between the two, in that you do not have to report every word said, but should summarise major areas of presentation and discussion, not just a summary of actions and expected delivery date. You can find EQUINET meeting reports at: http://www.equinetafrica.org/bibl/reports.php. We'll discuss the structure of EQUINET meeting reports in *section 4* of this module.

Regardless of the style and content, a meeting report can only be as good as the notes taken at the meeting. Let's look at how to take good notes:

3. Note-taking

Before the meeting, familiarise yourself with the agenda and delegate list, so that you feel comfortable with the content of the meeting and know who will be attending. Have a preparation meeting with the main workshop facilitator so you know what is expected in terms of note-taking and to get guidance on the key presentations and topics. Ask the facilitator to ensure that:

- each delegate gives their name and organisation before speaking; and
- all key points from discussions be written on flipcharts, including:
  - question and answer sessions; and
  - agreed actions, who will do the work and timeframes.

The meeting agenda should serve as a guide to the note-taker because they can use it to structure the notes. The agenda will clarify the purpose of each group of presentations and the name of each presentation in the group, as well as the names of chairpersons and presenters. These can be used as headings and subheadings in the meeting report.

If you have access to a laptop computer, take notes on the computer and save them. This will save a lot of time after the meeting. If you are taking notes on a computer, you can write up all the headings and subheadings *before* the meeting, based on the meeting agenda, and even insert relevant names of chairperson or presenters under the headings. This will make it easier to slot notes in under the relevant headings. If you are taking notes by hand, remember to keep referring to your agenda to keep track of where you are in the meeting, and to note relevant headings.

When a meeting starts, each delegate will usually be asked to state their name and organisation. It is very important for the note-taker to pay attention in this session, as they should try to remember the names of as many delegates as possible, and also tick them off on the list of names.

Computer technology has done much to make note-taking in meetings much easier. In particular, many presenters at meetings now use a PowerPoint presentation to outline their work; the note-taker can save these presentations on disk and use them in constructing the report. Even if a presenter did not prepare a slide presentation, they may well refer to notes written in some other electronic format (e.g. MSWord), which the note-taker can save and use in writing the report.

Obtain any electronic versions of presentations before sessions.

If there are electronic presentations make sure to get a copy of these from the presenters. In your notes, you can then simply refer to the presentation, and write up the presentation in summary form **after** the meeting. In addition, many workshop presenters use flipcharts in their presentations, and group work in meetings is often written on flipcharts. Therefore, the note-taker should always ensure to save all flipchart notes and refer to these in writing the report.

Regarding discussions that take place after a presentation, make sure to ask each person who speaks to state their name and organisation before they ask a question; this way you can easily keep track of who spoke. Remember to keep a list of delegates nearby, so you can look at the list if you are unsure of the delegate's name. Always note down the person's name and *exactly* what they said. Even if you are going to summarise discussions later, you will need to keep all the relevant information before you can make writing decisions.

Always keep the agenda and delegate list handy to facilitate note-taking.

Sometimes you may find it difficult to capture the exact words, in which case write a summary of key points. If you did not understand what was said, remember to approach the delegate during tea or lunch break to get a brief explanation.

As a note-taker, focus on reporting what people say that is not part of a formal presentation (either electronic or on flipchart). Capture as much as you can of what is said, but also ask all presenters and workshop facilitators to give you either electronic notes, or write agreements on flipcharts, so you can refer to these later. If you know how to use shorthand, you can use this, but you can also use your own abbreviations in taking notes. Some commonly used abbreviations include:

Word	**Abbreviation**
government	govt
by the way	btw
with respect to	wrt
people	ppl
Ministry of Health	MoH
South Africa/n	SA
Namibia/n	Nam
Zimbabwe/an	Zim
discussion	discussn
presentation	presentn
Include/included/including	incl
infrastructure	infra

If you keep using the same phrases in your notes, make up your own abbreviation.

You can also make your life easier if, after each session, you note 'Who, what, where, when, why and how?' You can expand the notes into realistic summaries later, provided you don't wait too long before you work on the report (St Maur, 2003-4).

4. Creating a narrative from your notes

After the meeting, you need to structure your notes, the flipcharts and electronic presentations to create a narrative of the meeting. Often notes are written in point form; even electronic presentations will bullet list many items. You need to write these in full sentences instead, giving the report logical flow, including good sentence and paragraph structure (as discussed in *Module 3*). Make links between each presentation and the following discussions, and logical links between each section of the meeting, using the agenda items to guide the structure of your report.

5. Structure of EQUINET meeting reports

Exercise 7.2

20 minutes

Group work

Items needed for exercise: newsprint and markers, example EQUINET meeting reports

Look at the two examples of EQUINET meeting reports in your groups, discuss and write on newsprint:

- What topics did the two meetings cover? What was the content of each meeting?
- Do you think the reports adequately reflect the meeting?
- Which report do you think is most accessible?
- Which report do you think best reflects the meeting?
- What is similar about the structure and content of the two reports?
- What is different about the structure and content of the two reports?
- What makes a good meeting report?
- Do you have any suggestions about how to improve EQUINET meeting reports?

Report your discussions back to the plenary.

EQUINET meeting reports provide a summary of each section of the meeting, including:

- background to the meeting and introduction;
- summary of every presentation;
- summary of key points emerging from discussion of each presentation;
- conclusions emerging from presentations;
- agreed actions to follow from meeting, including who will do the work and timeframes;
- issues for future discussion (e.g. issues not yet agreed); and
- summary of closing.

Write the report as a narrative, and include any useful diagrams from the presentations, and/or group activities. For the main body text, use the headings and subheading from the agenda.

A good meeting report:

- is short but complete (concise);
- contains only what is necessary;
- contains interesting and relevant information;
- uses simple language;
- is well structured and organised;
- has no repetition;
- does not preach or lecture;
- is neat and tidy (typed or well printed/written) (adapted from: Bartle, 2007).

Writing reports need not be boring - consider the task as a challenge.

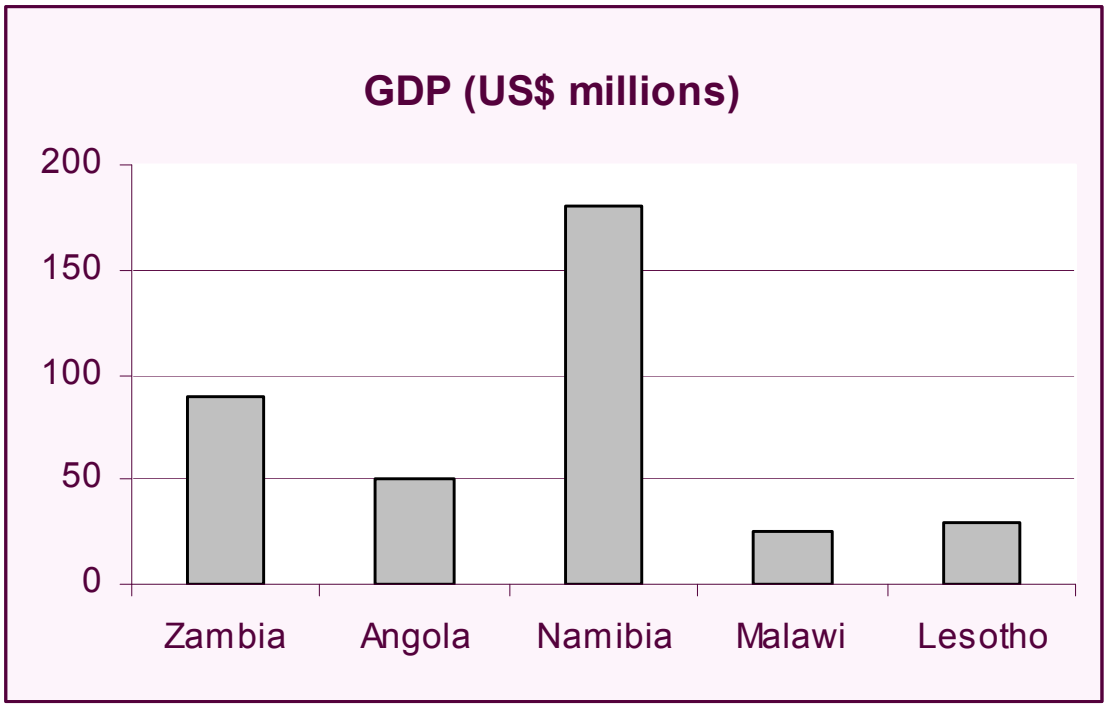
Suggested reading

18. Bartle P (2007) 'Part D: Writing better reports,' *Community Empowerment Report Writing*, accessed on 3 October 2007at: http://www.scn.org/cmp/modules/rep-btr.htm
19. St Maur S (2003-4) 'How to write more powerful reports,' *Effective Communication Skills*, accessed on 3 October 2007 at: http://www.hodu.com/report-writing.shtml
20. van Ginneken L (undated) 'Introduction,' *Guidelines for writing reports*. The Network Learning Organisation: Netherlands, accessed on 3 October 2007 at: http://www.networklearning.org/writing-reports.html

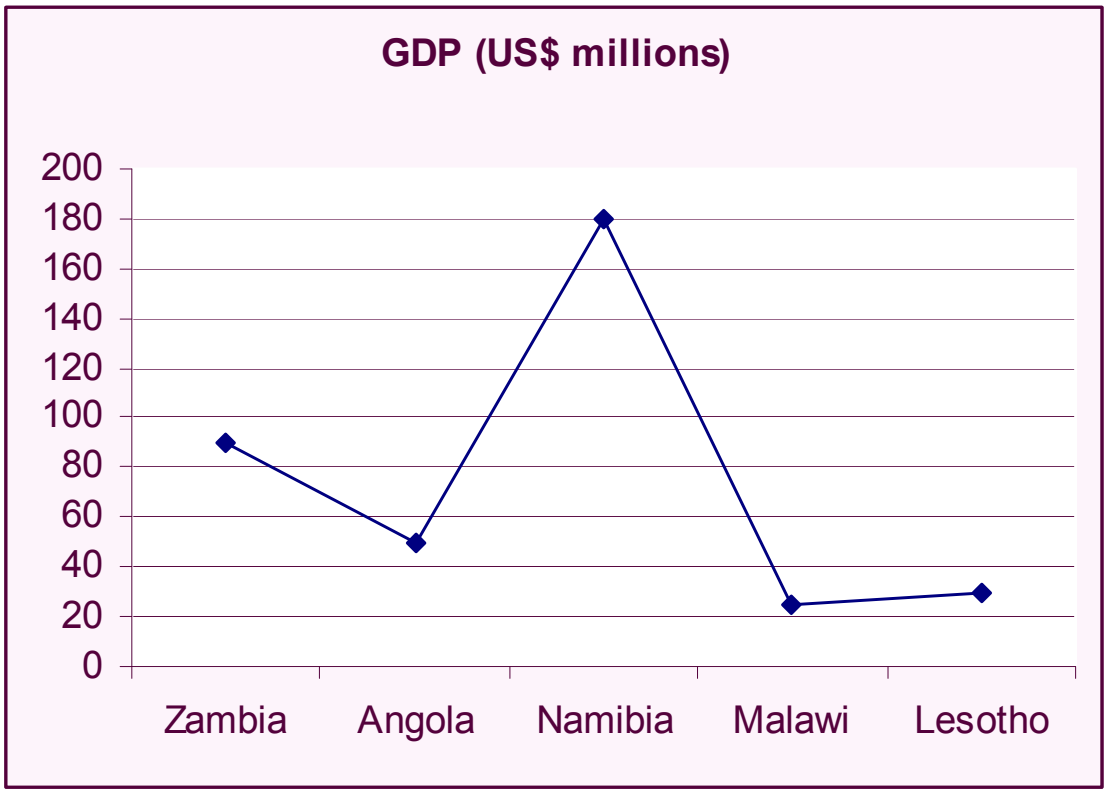
Appendix 1
Answer sheet

Exercise 3.2

Bar graph



Line graph



Exercise 4.1

Original	*Answer*
1. majority	most
2. linkages	links
3. additional	more
4. a need for	need
5. apparent	clear
6. approximately	about
7. as a consequence of	because
8. assist	help
9. attempt	try
10. beneficial	helpful, useful
11. combine	mix, join
12. component	part
13. concur	agree
14. consequently	so
15. currently	now
16. customary	commonly
17. demonstrate	show
18. despite the fact that	although
19. dominant	main
20. emphasise	stress
21. establish	show
22. exclusively	only
23. facilitate	help
24. for the purpose of	to
25. for the reason that	because
26. frequently	often
27. illustrate	show
28. in case of	if
29. in most cases	mostly
30. in relation to	about
31. manner	way
32. numerous	many
33. objective	goal, aim
34. option	choice
35. predominant	main
36. principal	main
37. prior to	before
38. proportion	part
39. provided that	if
40. reduce	cut
41. require	need
42. sufficient	enough
43. that being the case	if
44. utilise	use
45. utilisation	use
46. with respect to	about/for
47. with regard to	about/for
48. commence	start/begin

(*Adapted from:* Plain English Campaign, 2001)

Appendix 2: EQUINET AUTHOR AND EDITOR STYLE GUIDE

Last updated on 13 February 2008

Table of contents

1. Text content

1.1 Abbreviations and acronyms

Unless an abbreviation is very common (*USA, UN*), it should be spelled out in full when it is first used, with the abbreviation appearing in brackets immediately afterwards:

University of Wales Institute of Science and Technology (UWIST)

Do not use full stops with abbreviations

MrMs etc USA UNDP

with the following exceptions:

e.g. i.e. no. (meaning number)

Do not use apostrophes with plural abbreviations such as:

NGOs CBOs 1980s etc.

1.2 British or American English? Spelling and style

Use British and not American English:

colour, not color

petrol, not gas

AIDS not Aids
bookkeeping
CDROM not CD-ROM
colour
co-ordinate, co-operate
decision-maker, decision-making
disk (computer)
email
fundraising, fundraiser
HIV/AIDS
internet
'isation' not 'ization'
'ise', not 'ize'labour
online
Phase 2
plan-do-review cycle
Resource centre
Section 4
trade unions (pl), not trades unions
Unit 1
website
workfile
world wide web

If in doubt, follow the spelling given in *The Oxford Dictionary for Writers and Editors*.

Avoid gender specific terms such as policeman or fireman. Use alternatives such as police officer or firefighter.

Do not write *he/she, s/he, him/her, his/her* but instead use *they, them, their.*

Writing style should be simple, using short sentences. Avoid jargon and passive voice.

1.3 Dates

Day (with no 'th'), month, year:

11 January 2000

Decades:

1980s, not the eighties, not 80s, NEVER 1980's

Centuries:

20th century

1.4 Punctuation: Colons, commas, exclamation marks, quotation marks/inverted commas

When introduced by a phrase/clause ending in a colon, direct questions should start with an initial capital letter and end with a question mark:

That brings us to the most important point: When should you start writing?

But for other instances using a colon, start with a lower case letter:

For example, you should type short lists that are not bullet pointed as follows: boxes, filing cabinets and suitcases.

Do not use a serial comma in lists of more than two items before the last 'and' or 'or'.

oranges, lemons and apples

We decided to go to London, find the best bookshop and spend the whole day there.

Avoid exclamation marks!

Use double quotation marks for quotes; otherwise always use single quotation marks.

1.5 Numbers, percentages, measurements, time and currency

- One to twenty in words, 21 and above in figures
- Always use commas to indicate thousands and millions:

1,5452,350,000

For decimal points, use a point, not a comma, e.g.:

33.3% NOT *33,3%*

In both text and tables, use a figure followed by the percent sign, with no space between the two:

2% 33.3%

Use the 24-hour clock:

5:08 11:0019:45

All measurements should be written in figures, with no space between the number and the measurement. Use the accepted abbreviated form of a measurement, with no 's' for plural amounts:

10p 215kg 25km

In running text, do not include .00 in sums of money, e.g.

They had to pay $2 each **not** *$2.00 each.*

In tables, all figures for money should be right aligned and include figures after the decimal point, even if they are 00, e.g.

Table 1: Monthly salaries paid to medical practitioners

Nurses	R4,500.00
Doctors	R10,000.00

1.6 Quotes and References

Long quoted passages
Long quoted passages which form a separate paragraph should not be in quotation marks, but should be in italics and indented, e.g.

FAO'S latest estimates signal a setback in the war against hunger. The number of chronically hungry people in developing countries declined by only 19 million between the World Food Summit (WFS) baseline period of 1990–1992 and 1999–2001.

Reference style within body of text
Use the Harvard, or author-date, system for references. The author's surname and the date of publication is included in the text:

… as Kalumba (1997) has demonstrated…

- If the reference and date are shown in brackets separate with a comma:
  …as was shown in a recent study in Zimbabwe (Kalumba, 1997)…
- Works with more than two authors should be listed as the first author followed by et al:
  Bennett et al (1995)
- If more than one work is referred to, separate the references with a semi-colon:
  … as has been shown by recent studies in southern Africa (Kalumba, 1997; Bennet et al, 1999).
- If the author has two or more publications in the same year, label them Kalumba 1997a, Kalumba1997b in the text and also in the list of references.
- If a page number is required, for example when giving the source of a quotation, add the page number after a colon:
  (Kalumba, 1997: 153) or Loewenson (1999: 42)

DO NOT include pp for page references!

Reference list style
The full list of references appears at the end of the text in alphabetical order of authors' surnames.

- Several works by the same author should appear in chronological order.
- Works by a single author appear before those by the same author with collaborators.
- Do not use full stops after or between initials.
- DO NOT use commas to separate the name and initials of the author.
- Use commas to separate the names of different authors:
  James WG, Marks FM, Wills MW
- For the names of editors, put *(*ed*)* or *(*eds*)* in brackets after the name.
- Put brackets around the date of publication.
- Use initial capitals only for the first word or pronouns in book and journal titles.
- Put book and journal titles in italics.
- Only use initial capitals for the first word and any proper nouns in article, chapter and unpublished document titles.
- Put single inverted commas around article, chapter and unpublished document titles.
- Use full stops at the end of references.
- Page numbers in references should come after the name of the publication and, where relevant, journal number and volume, and before the Publisher's name and place, e.g.
  Journal of African Studies 4 (5): 1147-50. Oxford University Press: Oxford.
- For Journal articles, use the volume of the journal, followed by the number in brackets and the page numbers after a colon without a space, e.g.:
  Finance and Development 36(1):6–9.

- For the name of the publisher and place, use the publisher name, colon, place name, as follows:
  Oxford University Press: Oxford.

The following are examples of how various kinds of references should be listed:

Books

1. Cornia GA and Helleiner GK (eds) (1994) *From adjustment to development in Africa: Conflict, controversy, convergence, consensus?* Macmillan: London.
2. Lafond A (1995) *Sustaining Primary Health Care*. Earthscan Publications: London.
3. Ramphal S and Carlsson I (1995) *Global neighbourhood: Report of the commission on global government*. Oxford University Press: Oxford.

Chapters in books

4. Bates R (1994) 'The impulse to reform in Africa', in JA Widner (ed) *Economic change and economic liberalisation in sub-Saharan Africa*. Johns Hopkins University Press: Baltimore.

Journal articles

5. Calamitis EA (1999) 'Adjustment and growth in sub-Saharan Africa: The unfinished agenda,' *Finance and development* 36(1):6–9.
6. Carmody P (1998) 'Constructing alternatives to structural adjustment in Africa,' *Review of African political economy* 75:25–46.

Published papers in a series

7. London L (2003) 'Can human rights serve as a tool for equity?' *EQUINET Policy Series 14*. EQUINET: Harare.

Unpublished documents

8. CIDA (1998) 'Canadians and development assistance: Environics poll results.' Communications Branch, unpublished mimeo, Ottawa.
9. Edwards M, Hulme D and Wallace T (1999) 'NGOs in a global future: marrying local delivery to worldwide leverage,' background paper to *NGOs in a Global Future Conference, Birmingham (January)*.
10. Marren P (1999) 'The Asian crisis and the Indonesian experience,' paper presented at *ETISC Conference, Dublin (20 February)*.
11. Stiglitz J (1998) 'More instruments and broader goals: moving towards the post-Washington consensus,' *WIDER Annual Lecture, Helsinki (7 January)*.

Websites

Include the full URL and date accessed. If it is an article, please make sure you record the article name and author also, as sometimes URLs change and we still need to give information that will help someone else track down the document we used!

http://www.fahamu.org (accessed 26 March 2004).

If referring to a specific page, provide explicit directory and filenames and extensions, e.g. http://www.fahamu.org/who/index2.html (accessed 26 March 2004)

!!Beware: some files have an extension .html whereas others have .htm !!

Government papers

12. Ministry of Trade and Industry (2004) 'Trade and investment Act,' *Act 69 of 2004*. Government of South Africa: Pretoria.
13. Ministry of Health and Child Welfare (2003) 'Child support grants Bill,' *Bill 27 of 2003*. Government of Zimbabwe: Harare.

Newspaper articles

If the author of a newspaper article is not mentioned, it should be listed as, for example:

14. Business Day (2005) 'Water privatisation shakeup.' *Business Day*: Johannesburg, 12 January 2005: 3.

If the authors name is mentioned:

15. James L (2005) 'Water privatisation shakeup,' *Business Day*, 12 January 2005: 3. Business Day: Johannesburg.

EQUINET papers

Please reference EQUINET papers as follows:

16. London L (2003) 'Can human rights serve as a tool for equity?' *EQUINET Policy Series 14*. EQUINET: Harare.

1.7 Table of contents

Heading style
The style for the heading is Table of contents written in Arial 14pt, bold and centred.
Names and numbering
All items in the Table of contents are numbered and in Arial 12pt normal. Page numbers are right-dot-aligned. The table of contents shows two heading levels, as follows:

1.8 Tables, figures and boxes

Number tables, figures and boxes consecutively, in the order in which they appear:
Table 1 Table 2 Table 3
Figure 1 Box 1

The line style for boxes, figures and tables is 1pt black.

Captions and headings should **always** be at the top of the table, box or figure. They should be left aligned and should be in bold, NOT itals. The name of the box, table or figure should also be in bold after a colon, e.g.:

Table 1: Backlog of infrastructure development in Africa
Figure 1: Average household consumption

Note that the text should all be lower case, except the first letter after the colon or pronouns. NO FULL STOP at the end of the line.

When referencing figures, boxes or tables in text, use italics e.g. *Table 1*, *Figure 2*
Don't use upper case for totals boxes, e.g. not TOTAL COSTS, but Total costs
Don't use colons at end of column and row headings, e.g. not
Direct project costs:
but *Direct project costs*
In tables currency should be right aligned, e.g.

Costs	500.00

The source of the table, figure or box should be outside the frame and left aligned, e.g.

Source: UNDP, 2004.

When creating figures in X-Cel and importing into MSWord, please note the following:

- remove borders on figures in X-Cel (borders must rather be added in MSWord, otherwise it is difficult to crop the images to fit during the editing process;
- make sure that the colours you choose look ok when printed in black and white, and that the key makes clear what the different shades mean;
- DO NOT put the title of the image in the image file: this must be done in MSWord using text above the image;
- DO NOT put sources inside the image on the image file: this must be done in MSWord with text below the image;
- make sure you **label** the X- and Y- axis of any graphs;
- put the key below the graph, **not** to the right of the graph;
- in the comments of your MSWord file make sure you supply the amounts or percentages relevant to your graph in case the editor needs to alter it for any reason; and
- keep the images as simple as possible – too much fancy decoration makes figures difficult for editors to edit!

2. Text layout

2.1 Bold, italics

Use bold type for emphasis and for referring in the text to headings.

Use italic type only for titles (of books, films, etc), for references to tables and boxes in the text (*Figure 1*, *Figure 2*, etc.) and for words (but not proper nouns) in languages other than English. Use **bold** and not italic for emphasis in the text.

2.2 Bullet lists

If the sentence introducing a bullet list is a full sentence, end with a fullstop before the bullet list, if not end with a colon. The style of a bulleted list depends on the type of list.

4.1. Short list

If the list is of a number of items, but the items are each short, then the list should have no punctuation except a full stop after the last item, as follows:

- lower case
- no punctuation in list
- full stop after last point.

4.2. Clause/phrase list

If the items on the list are slightly longer clause or phrases, then:

- each point should start with lower case;
- there should be a semi-colon at the end of each point;
- the second last point in the list should have an 'and' after the semicolon;
- if the phrases/ clauses present a list of alternatives, the second last point should end with an 'or' after the semicolon; and
- there should be a full stop at the end of the last point.

4.3. Full sentence list

If the items in the list are one or more full sentences, then the points should begin with a capital letter and end with a full stop, e.g.:

- *There was no increase in investment in the 1995/6 tax year, although investment shifted from gold mining to platinum mining.*
- *Employment dropped by 20% in 1995/6, but increased by 5% in platinum mining and 2% in the textile industry.*
- *The price of basic goods remained steady, but the price of luxury items increased by over 50% in 1995/6.*

2.3 Capital letters

Keep initial capital letters to the minimum. Only use for proper nouns, such as names and titles. Do not use for words such as *government, state, law*.

For job titles write:

Prime Minister Tony Blair but *Tony Blair is the British prime minister.*

For organisations, only use capital letters with the full name:

… the University of the Witwatersrand has a policy, but *the university has a policy.*

2.4 Headings and subheadings

Use Initial Capital for first word only, unless any of the other words are proper nouns.

2.5 Paragraphs

Do not indent the first word of a new paragraph. Indicate a new paragraph with a hard return.

2.6 Font styles and sizes

Front title name of document is Arial 22pt, bold and centred with a ½ pt border

Authors' names immediately below the document title in Arial 16pt, bold, centred

Authors's institutions listed below author names in Arial 14pt, bold, centred

Insert logos of participating institutions and EQUINET logo.

EQUINET Credit in 16pt Arial, bold, centred

Regional Network for Equity in Health in Southern Africa (EQUINET)

EQUINET publication type in Arial 16pt, bold, centred, ALL CAPS

EQUINET DISCUSSION PAPER 35

Names of co-operating organisations in Arial 14pt, bold, centred

with the Health Systems Trust

Date of publication Arial 16pt, bold, centred

May 2006

Names of funders in Arial 14pt, bold, right aligned

with support from SIDA (Sweden)

Heading 2 for Names of sections in document in Arial 14pt, bold. For the heading "Executive summary" please centre, otherwise, left aligned and numbered 1, 2, 3, etc. HRt before and after the heading.

Heading 3 for sub-headings in Arial 13pt, bold, left aligned and numbered 1.1., 1.2., 2.1., etc. HRt before and after the heading.

Heading 4 Arial 12pt, italics and left aligned – NO numbers! HRt before heading.

Heading 5 in Arial 11pt, bold and left aligned – NOT numbered! HRt before heading.

References text in Arial 10pt, left aligned, interline spacing AFTER = 5pt, numbered in alphabetical order

Figure and table names in Arial 11pt, bold, left aligned, e.g.
Table 1: Distribution of health workers between various sectors, 2000

Figure 1: Percentage of health workers with HIV/AIDS

Table headings for columns in Arial 11pt, bold, centred.

Table headings for rows in Arial 11pt, bold, left aligned.

Table text in Arial 11pt, normal, left aligned.

Numbers in table Arial 11pt, normal, centred.

Currency in table Arial 11pt, normal, right aligned.

Headings within figures: **Arial 11pt, bold, centred**.

Text within figures: Arial 11pt, normal, left aligned.

Sources for tables and figures:
Source: in Arial, italics, left aligned and Author, date in Arial 11pt, normal, left aligned.

2.7 Instructions to editor or designer

Do not put any instructions about layout, etc, into text boxes. All instructions and notes should be written using the “comments” function.

Appendix 3

International health journal submission guidelines

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
Article types	Original research articles, review and educational articles, letters, and articles commenting on the clinical, scientific, social, political, and economic factors affecting health.	Original research reports OR critical reviews OR research findings, comment on topical issues or correspondence. Only original, unpublished material, not being considered for publication elsewhere, subject to appropriate ethical review. Authors must confirm this in submission.	Unsolicited manuscripts, which are initially screened in-house for originality, relevance to an international public health audience, and scientific rigour.	· Original contributions that advance or illuminate medical science or practice, or educates or entertains journal's readers, including: Comment; World Report; Perspectives; Obituaries; Correspondence; Adverse drug reactions; Department of Error; Seminars, Reviews, and Series; Hypotheses; Other departments; Case Reports; Clinical Pictures	· Research · Commentary · Hypothesis · Methodology · Review
Submission process	All material must be submitted exclusively to the BMJ. Submit electronically to online editorial office.	Submit online at: http://www.ees.elsevier.com/ssm/ Retain an electronic copy of manuscript.	Submit on website at: http://submit.bwho.org	**First** submit cover letter and abstract via email or post. If contacted for further submission, include: Manu-script; Figures; Authors' contributions statement; Conflict of interest and source of funding statements; Signed patients' consent and permission to publish; In-press papers: copy of each with acceptance letters; Protocols and Consort details for randomised controlled trials; correspondence from other journals and reviewers, if previously submitted. If selected for further submission send signed copies of: Authors' contributions; Conflicts of interest; Statements of role of medical writer or editor; acknowledgments and personal communications with written consent of cited individual; use of copyright-protected material with signed permission statements from author and publisher.	One author responsible for submission and peer review. · Online submission, with email addresses of co-authors and possible peer reviewers. · Cover letter · All files for manuscript in acceptable format. · Article processing charges or request for a waiver. · Confirm all authors have read and agreed to content, and materials will be freely available to any scientist for non-commercial use. Confirm manuscript is original, not published in another journal and not being considered by another journal.

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
File formats	None mentioned	MSWord files	None mentioned	Use Word in PC format. Save tables in separate file. Send manuscript, including text, references, figure legends, and tables, on 3·5'' (9 cm) floppy disk, 100mb Zip disk, CD-ROM, or by e-mail to editor. Label disc with manuscript reference number, name of first author, word-processor used, file names, and date.	Use file extensions (e.g. .pdf, .xls, .txt). Download template from site, or use: MSWord (2.0 and above), WordPerfect (5.0 and above), PDF, RTF, DVI, TEX (use BioMed Central TeX template). Include description of additional files and software to view. If published, additional files will only be available in format originally provided. **Tables**: less than 2 pages at end of m/s. Longer tables as additional files. **Figures:** EPS, PDF, PNG, TIFF, JPEG, BMP, DOC, PPT, CDX, TGF as separate files. **Other:** Any standard file type, e.g. movies, datasets.
Cover letter			Two paragraphs on what it adds to literature; briefly explain what is already known about topic and what we know as a result of study.	Explain why your paper should be published. Indicate what could shorten your paper, e.g. tables and figures may be made available on website but not in printed journal.	State why your manuscript should be published and any issues relating to editorial policies detailed in author instructions.
Structure	As for International Committee of Medical Journal Editors guidelines	Abstract; Main text; References; Appendix; Figure captions; Tables and figures; Word count (including all text, tables, figures, references etc.	As for ICMJE guidelines	As for ICMJE guidelines	Title page; Abstract; Background; Methods; Results; Discussion; Conclusions; List of abbreviations; Competing interests; Authors' contributions; Acknowledgements; References; Figure legends; Tables and captions; Description of other files

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
Length		2000 to 4000 words including abstract, tables, endnotes and references, and main text.		Aim for 3000 words and 30 references.	No limits, but be concise.
Language, style and editing	Preferred dictionaries: *Chambers 21st Century Dictionary* and *Dorlands* for medical terms, UK not US spelling. Use full stops in initials or abbreviations, minimal commas and hyphens, single inverted commas for reported speech with full stops and commas inside quote marks, no exclamation marks, except in quotes, reference numbers after commas and full stops and before semicolons and colons, minimal capitalisation for names and proper nouns, not names of studies. Write in active voice, use first person if needed, avoid long sentences with embedded clauses, avoid 'he' as a general pronoun: make nouns (and pronouns) plural and use 'they', nouns and verbs should agree, avoid noun clusters.	US or UK English, but use either consistently throughout manuscript. Editors may adjust style to certain standards of uniformity.	Accepted papers subject to editorial revision, including shortening and omission of tables and figures if appropriate. Papers should be submitted in English. Abstracts and keywords of main articles are translated into Arabic, French and Spanish.	Write for general readership. Paper will probably be substantially edited after acceptance to ensure it is accurate, clear, and understandable to wide readership.	Write clearly and simply in English only. In-house copyediting will be minimal. Non-native speakers of English may choose to use copyediting service.
Typography and measurements	Use minimum abbreviations. Numbers under 10 are spelt out, except for measurements with a unit or age (6 weeks old), or when in a list with other numbers. Measurements in SI units.	Double spaced, 10-12pt font. Number pages in the bottom right. No footnotes; if needed use endnotes numbered in superscript Arabic.	Footnotes in the text not encouraged, but if used, remove links inserted by word-processor.	SI system of units.	Double spaced unjustified text, no hyphens; page numbers; capitalise only first word and proper nouns in title; Do not use footnotes; embed special characters in text or use symbol name. Use SI Units throughout.

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
Ethical approval	Provide details of ethics approval (or a statement that it was not required). Patient must sign BMJ consent form to publish personal information about a patient.		Clearly state that research was ethical principles, - World Medical Association provisions, Declaration of Helsinki and any country requirements. Specify free and informed consent of subjects or guardians, and institution or national ethical review board approval.	Studies on patients or volunteers require documented ethics committee approval and informed consent. Get signed consent of patient or next of kin in case of unavoidable risk of breach of privacy, with signed consent form.	Assumes you have ethical approval for any human or animal experimentation.
Title page	Include title, names, addresses and positions of all authors; email address for corresponding author, copyright statement, competing interest statement, funding source(s), word counts paper and abstract, number of figures and tables included.	Submissions should be with all author-identifying text removed.	Authors should give their full names, name and address institutions, and an exact description of their posts. Full postal and email address of contacting author will be published unless otherwise requested.	Include title, names, addresses and positions of all authors plus email address for corresponding author, copyright statement, competing interest statement, funding source(s), word counts paper and abstract, number of figures and tables included in manuscript.	List title, which should include study design, e.g. A versus B in the treatment of C: a randomised controlled triall. Full names, addresses, and e-mail addresses for all authors. Indicate corresponding author.
Abstract/ summary	Structured abstract must match text layout. Provide context/background for study, study purpose, basic procedures (subject selection, observational and analytical methods), main findings (specific effect sizes and statistical significance), and principal conclusions. Emphasise new and important aspects of study or observations.	Maximum 300 words; it should not be structured into subsections.	Maximum 250 words, structured in four sections: Objective, Methods, Findings, Conclusion.	Max 250 words, no references, semi-structured, 4 paragraphs: background, methods, findings, and interpretation.	350 words in sections: **Background:** context and purpose; **Methods**: how study was done, statistical tests used; **Results:** main findings; **Conclusions:** brief summary and potential implications; **Trial registration:** if research article reports results of controlled health care intervention, list trial registry and identifying number. Do not use abbreviations or cite references.
Keywords		Enter keywords separately during submission.	Max10 keywords or short phrases.	None	None

Publisher guidelines		Publisher/Journal				
		British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
Body text	**Back-ground**	Provide context or background for the study, specific purpose or research objective, or hypothesis tested. Make main and secondary objectives clear. Keep references to a minimum and do not include data or conclusions from work.			Provide context or background for the study, specific purpose or research objective, or hypothesis tested. Make main and secondary objectives clear. Keep references to a minimum and do not include data or conclusions from work.	Written from view of researchers without specialist knowledge. Clearly state (and, if helpful, illustrate) background to research and aims. End with very brief statement of what is reported in article.
	Methods	Define methods and support with references, describing in detail any not in common use. Include only information available when plan or protocol was written. Include "Role of the funding source", list role of sponsor(s) in design; data collection, analysis and interpretation; report writing; decision to submit for publication. If no such contribution, say so.			Define the methods and support them with references, describing in detail any not in common use. Include only information that was available at the time the plan or protocol for the study was written; all information obtained during the conduct of the study belongs in the Results section.	Include: · design of study · setting · type of participants or materials · clear description of all interventions and comparisons · type of analysis used, including a power calculation if appropriate.
	Results	Use ICMJE guidelines			Use ICMJE guidelines	Combine results and discussion or present separately (can also be broken into subsections with informative headings). Include statistical analysis, where appropriate, of relative and absolute risks or risk reductions, and confidence intervals.
	Discus-sion	Use ICMJE guidelines. For qualitative research can present results and discussion together, but abstract must match text layout. Group direct quotes from participants, in boxes and keep text under 2000 words. Number quotes so readers can tell range of people quoted.			Use ICMJE guidelines	
	Conclu-sions					Clearly state main conclusions of research and explain importance and relevance. Summary illustrations may be included.

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
Competing interests*	Declare competing interests, describe all authors' interests or declare in manuscript that 'All authors declare that the answer to the questions on your competing interest form are all No and therefore have nothing to declare'.		Disclose information on financial and other conflicts of interest (e.g. employment, family relationships, academic links, political or social interest group membership, deep personal conviction).	Include disclosure of relationships that could present a conflict of interest. Editor may use such information as basis for editorial decisions, and will publish disclosures if believed to be important to readers in judging manuscript.	Complete declaration of competing interests, as separate section of manuscript. Where author has no competing interests, listing will read 'The author(s) declare that they have no competing interests'.
List of abbreviations					Define when 1st used, or list abbreviations.
Authors contributions	State authorship credits based on: conception and design; data analysis & interpretation; drafting or critically revising article; final approval. Confirm all authors fulfil authorship criteria, and no one who fulfils criteria was excluded.	Normally no more than six authors listed, except with special justification.	State that each author participated sufficiently in the work being reported to take public responsibility for content; each author must provide a description of their contribution.	Specify authors' contributions, in format: "I declare that I participated in the (list contributions made) and that I have seen and approved the final version. I have the following conflicts of interest" (list all relevant conflicts). At external peer review stage send signed copies of statements for all authors.	Specify individual contributions of authors. List contributors who do not meet criteria for authorship in acknowledgements.
Acknowledge-ments	Declare all sources of funding under a separate heading. Detail study sponsor(s) role in design; data collection, analysis, and interpretation; report writing; and decision to submit for publication. State the independence of researchers from funders. If authors' work was independent of funders (funding source had no involvement), the authors should so state. The role of professional medical writers must be transparent, explained and listed (specifying funding source).		Authors should declare sources of funding for work undertaken.	Declare all funding sources. Name medical writers or editor involved in creating manuscript, with signed statement from corresponding author to include name and information on funding of this person. Also send signed statement from this person declaring that he or she has given you permission to name them.	Acknowledge all who made substantial contributions to conception, design, acquiring data, data analysis &interpretation, or drafting or revising manuscript. Include funding source(s), and those who contributed essential materials. Get permission to acknowledge from all those mentioned. List funding source(s) for each author and manuscript preparation, describe role of funder in study design, data collection, analysis, and interpretation, writing manuscript, and decision to submit manuscript.

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
Referencing style	Authors must verify references against the original documents before submitting the article. Number references in the order they appear in text. Follow Vancouver style. Give names and initials of all authors (unless more than six, in which case use et al). Authors' names are followed by the title of the article; the title of the journal abbreviated according to the style of Index Medicus; the year of publication; the volume number; and the first and last page numbers. Information from manuscripts not yet in press, papers reported at meetings, or personal communications should be cited only in the text, not as a formal reference. Get permission from source to cite personal communications.	APA reference system: http://www.apastyle.org/. List all publications cited in text. In the text refer to author's name (without initials) and year of publication e.g. 'Peterson (1993)' or '(Kramer, 1994)'. For 2-6 authors list all authors at first citation, with '&'separating last two authors; for more than six authors, use first six authors followed by et al. In subsequent citations for three or more authors use et al. Reference list by authors' names as follows: Surname, initials & surname, initials. (year/in press). Article or chapter title. Publication name, issue (number): 1st page - last page. City: Publisher.	Verify all references at: www.ncbi.nlm.nih.gov. Number references in order in text (in italic type in roman parentheses, at the end of a sentence) and list in numerical order at the end of text. Remove all links inserted by automatic endnote facilities of word-processor. List as follows: Name first followed by 'et al.' if more than six. Adapt Vancouver style (www.icmje.org/index.html) as follows: – titles of books are italicised; the first word of the title has an initial capital letter; – titles of journals are spelled out in full and italicised; all main words have an initial capital letter; – titles of articles not in English followed by translation in square brackets; the reference is followed by 'In [original language]'.	List as follows: Number[tab]Author names and initials separated by comma with full stop after last initial. Name of article/chapter followed by full stop. *Publication name in italics* Year (or in press) semi-colon (;) **number and issue in bold colon (:)** page numbers separated with –(en rule). Give: any subpart to title, all authors, any editors, publisher and city of publication for a book. In text, cite references sequentially in Vancouver numbering style, as super-script number after punctuation mark. If references "move" between text into tables or figures, maintain citation sequence.	List as follows: Author/editor surname initials: **article or chapter name**, *publication name*, year or in press, **number and issue**: page numbers. · Number references in square brackets, in order cited in text, followed by any in tables or legends. · Do not include citations in titles or headings. · If automatic numbering is used, finalise reference numbers and fully format bibliography. · Only cite published or in press articles and abstracts, or those available on public e-print/ preprint servers. Do not include unpublished data, abstracts or personal communications (get permission to cite personal communications), but include in text. · No notes/footnotes. · Journal abbreviations follow Index Medicus/MEDLINE. · Citations should list **all** named authors, even if more than six. Include web links, site title and URL.

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	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
Figures	Use published image only if it has no copyright or if copyright holder gives permission to publish in BMJ. If an image has no copyright, give details about source and permission to use in BMJ. Acknowledge medical illustration departments. If images are colleagues', get written permission and check if they were published in other books and journals. Include citation in legend on copied figures.	Refer to all photographs, charts and diagrams as figure(s) and number in order, with captions. Enclose as a separate file. All lettering, graph lines and points on graphs should be large and bold enough to permit reproduction when the diagram is sized to fit in the journal. Do not use shading on computer-generated illustrations.	In text, refer to tables and figures by number (e.g. Table 1, Fig. 3) and number consecutively, on separate pages with clear, concise titles. Grouped in sequence at end of text. Avoid abbreviations or acronyms, but if used-explain. Tables should not contain vertical rules. Graphs or figures in 2-D, not pseudo 3-D. Draw clearly and identify all data.	All figures are redrawn in *The Lancet* style by in-house illustrators.	Include legends in main manuscript immediately after references, rather than as part of the figure file. For each figure, provide: Figure number (in sequence, using Arabic numerals); short title of figure (maximum 15 words); detailed legend, up to 300 words. Author(s) must get permission from the copyright holder to reproduce previously published figures or tables.
Tables	Keep tables simple and do not duplicate information in text. Only use when data cannot be expressed clearly in any other way. Supply base numerical data for graphs, scatter grams, or histograms. Data given in histograms will be converted into tabular form.	Number tables in order with caption and each table in a separate file. Footnotes to tables appear below the table and referred to by superscript lowercase letters. No vertical rules should be used. Do not duplicate results presented elsewhere (e.g. in graphs).			Number in order (i.e. Table 1, 2, 3 etc.) with title, max15 words, followed by legend. Paste smaller tables integral to text at end of manuscript, in portrait format. Use 'Table object' in word processor to ensure columns align. Columns and rows with black borders, no shading or colour. NO commas in numbers. Upload larger datasets as Excel spreadsheets or comma separated values (.cvs) as additional files.
Peer review process	All material received is reviewed. Half original articles are rejected due to insufficient originality, serious scientific flaws, or absence of a message important to general medical audience. Open peer review: reviewers	All submissions are subject to initial assessment by Managing Editor, Editor-in-Chief or Senior Editor. Papers accepted for formal review will be sent anonymously to at least two reviewers	Manuscripts passing the initial screening are sent for peer review. After the reviews are received, a decision on publication is made by the Editorial Committee.	Submissions are read by one or more journal staff. Acceptance rate is less than 10%. Positive in-house views are followed by at least 3 peer reviewers. If reports are encouraging and editorial consensus is favourable, statistical advice is sought where appropriate. Submissions that survive in-house and	Online and open peer-review process, to improve accountability of peer review and giving reviewers credit. Address rejection appeals to Editor-in-Chief.

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
	sign reports, saying briefly who they are and where they work. To appeal rejection submit rebuttal letter; not revised version of article unless invited to after reading rebuttal letter. Rebuttal should be as detailed as possible. Respond to comments from peer review and/or full editorial committee point-by-point. Appeals offering to clarify and revise article, succeed more often than appeals against editorial decisions. If article is not interesting or important for readers, no point appealing. Only one appeal per manuscript.	with authorship details removed. Papers may be forwarded for legal review if appropriate.		peer review may be referred back to authors for revision: this is not an acceptance. Give priority to revisions and send back two copies of revised version, one highlighting changes made. Covering letter should detail responses to reviewers' comments and artwork guidelines. To appeal a decision state why you think the decision is mistaken and set out specific responses to any peer reviewers' comments if those seem to be the main cause of rejection.	
Editorial policy	Only about 7% of submitted articles are published, with quick and authoritative decisions, from submission to first decision given in two to three weeks, and from acceptance to publication eight to 10 weeks. These times are usually shorter for original research articles. Reject about two thirds of all submissions without sending them for external peer reviews.	Proofs sent to author by PDF and should be returned in 48 hours, by e-mail. Restrict corrections to typesetting errors; other changes may be charged to author. Return all corrections in one all-inclusive e-mail. Additional corrections will not be possible, so ensure your first communication is complete.		You will receive a proof from a named editor. Proof should be corrected and returned within 48 hours.	Manuscript may not have been published or under consideration in other journal, but may be put on preprint server. Manuscripts based on conference papers can be submitted unless published as part of the conference proceedings in a peer-reviewed journal. No material submitted infringes copyrights, or 3rd party rights.
Article processing charges	None			None.	£650 (€930, US$1315) Free for members; discount for supporter members
Copyright	Authors (or their employers) retain copyright but give exclusive licence (except for	Sign "Transfer of Copyright" agreement before publishing, to	Papers should be accompanied by a statement	Transfer copyright, recognising common interest that journal and author(s) have in protection of	Authors retain copyright.

Publisher guidelines	Publisher/Journal				
	British Medical Journal	**Social Science and Medicine**	**WHO Bulletin**	**The Lancet**	**Human resources for health**
	government employees who cannot grant this) to publish the article in the BMJ (including any derivative products) and any other BMJ Publishing Group products (such as the student BMJ or overseas editions), and allows sub-licence on such rights. May use for non-commercial purposes without asking permission (provided BMJ acknowledged as first publisher and give reference or web link), as follows: · post pdf on personal or institutional website if there is no charge for access; · make reasonable number of copies for personal or non-commercial professional use, including teaching. · republish part or all of the article in book or other publication edited by author (except for multiple contributions in the same book or publication, for which email permission is needed); · use figures or tables or extracts (up to 250 words) in other publications published by a third party; · use article in course pack or compilation in authors' institution, as long as no commercial charge is made.	protect copyrighted material for authors, without relinquishing proprietary rights. Copyright transfer covers rights to reproduce and distribute article, incl. reprints, photos, microfilm or similar reproductions, translation, right to adapt the article, including in machine-readable form and incorporation in retrieval systems. Authors (or employer institutions) may: · make copies (print or electronic) for personal use, incl. teaching; · make and distribute copies to research colleagues, for personal use (but not commercially or systematically, e.g., via e-mail list or list server); · post pre-print version on websites including electronic pre-print servers, and retain indefinitely on servers or sites; · post revised personal version of final text (to reflect changes made in peer review and editing process) on institutional or personal website or	that they have not already been published and are not being considered for publication elsewhere and that, if accepted for publication in the Bulletin, they will not be submitted for publication elsewhere without the agreement of the World Health Organization. If a manuscript is accepted for publication, the author(s) will be asked to sign a statement granting exclusive licence to the World Health Organization. A copy of the statement is available on the Bulletin web site (http://www.who.int/bulletin/). Authors are responsible for obtaining permission to reproduce in their articles any material enjoying copyright protection. The letter granting such permission should be sent to the Editorial Office.	copyright. Authors can make research publicly and freely available of peer-reviewed, accepted, and edited article on personal or institutional websites after publication, indicating citation and link to *The Lancet*'s homepage.	

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	British Medical Journal	Social Science and Medicine	WHO Bulletin	The Lancet	Human resources for health
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* A competing interest exists when your interpretation of data or presentation of information may be influenced by your personal or financial relationship with other people or organisations. Authors should disclose any financial competing interests but also non-financial competing interests that may cause them embarrassment were they to become public after the publication of the manuscript.

(*Adapted from:* Human Resources for Health, 2005; The Lancet, 2007; 2007b; British Medical Journal, 2007; ICMJE, 2006; Social Science & Medicine, 2007; WHO, 2004)

Suggested reading

1. Human Resources for Health (2005) 'Instructions for Human Resources for Health authors,' *Human Resources for Health*. BioMed Central: Geneva, accessed on 3 October 2007 at: http://www.human-resources-health.com/info/instructions/
2. International Committee of Medical Journal Editors (ICMJE) (2006) *Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication*. ICMJE: Philadelphia, accessed on 3 October 2007 at: http://www.icmje.org/ (Originally published in *New England Journal of Medicine* (1997) 336:309-15.)
3. The Lancet (2007) 'Information for authors,' *The Lancet.com*. Elsevier: London, accessed on 3 October 2007 at http://www.thelancet.com/authors/lancet/authorinfo#content
4. The Lancet (2007b) 'Formatting guidelines for electronic submission of revised manuscripts,' *The Lancet*. Elsevier: London, accessed on 3 October 2007 at: http://www.pensiero.it/strumenti/pdf/Diskettes.pdf
5. Social Science and Medicine (2007) 'Guide for Authors: Submission of papers.' Elsevier: London, accessed on 3 October 2007 at: http://www.elsevier.com/wps/find/journaldescription.cws_home/315/authorinstructions
6. World Health Organization (2004) 'Guidelines for contributors,' WHO Bulletin 82(1): 80-81, accessed on 3 October 2007 at: http://www.who.int/bulletin/volumes/82/1/80-81.pdf

Appendix 4
Model examples

1. Executive Summary (first draft)

Refer to the final draft of the executive summary (see opposite page) to see how the author corrected the following errors:

Opening sentence Needs to be stronger.

The effects of the exodus of health professionals from their countries of origin to wealthier countries in the North, particularly the OECD countries, has resulted in weakened health systems, the erosion of health gains and the loss of intellectual capital. In addition, these countries receive a diminishing return in terms of recouping the investment they made by subsidising the education and training of these health professionals.

← **Wordy – cut down.**

Repetition of above. ➔

Given the far reaching consequences and the impact human resource for health (HRH) migration has had on international health systems, a renewed policy momentum which seeks to explore ways of managing migration is evolving. The past decade has seen a plethora of policy statements, codes of practice and bi-lateral agreements being developed – all of which in some way or the other attempt to address the push and pull factors leading to migration and make recommendations for ensuring that recruitment takes place in an ethically responsible and acceptable manner. In addition, ensuring that the social and economic costs and benefits of migration are fairly distributed between source and receiving countries through investments in source countries is fundamental to the issue of mitigating the effects of migration.

Not the subject of the ← **sentence.**

Make these items into a bullet list.

'It' should not be subject – not clear what it's referring to.

➔ It is against this backdrop that EQUINET commissioned Health Systems Trust (HST) to conduct a review of current instruments for the ethical recruitment of health workers. The review looks at current multi-lateral agreements, codes of practice, bi-lateral agreements, regional agreements, strategies and position statements that govern the migration of health workers. These instruments are analyzed according to their scope, principles and content. The paper will not address how the instruments are working in practice; instead it provides an overview of existing instruments that govern the migration of health workers. This paper was presented at the annual EQUINET/ HST/ ESCA regional policy and research meeting on health worker migration and retention in east and southern Africa, held March 17-19, 2007 in Arusha, Tanzania where proposals were called to do follow-up work on the how the instruments work in practice.

The review (or paper) cannot be the subject because it cannot perform actions like a person.

2. Executive Summary (final draft)

Strong opening paragraph consists of two contrasting statements.

For many health professionals, increased globalisation and internet access in the 21st century are a blessing – now they can pursue career opportunities in the global labour market like never before. But the flow of skilled workers is largely one-way, from poor countries, like those in Africa, to wealthy countries, such as OECD countries in the industrialised North. And this outward migration comes at a cost to their poor home countries: weakened health systems, the erosion of health gains and the loss of intellectual capital. In addition, these countries do not recoup the 'investment' they made when they subsidised the education and training of these health professionals.

← **Wordy phrase has been cut down.**

Replaced with linking word.

➔ Clearly there is a need to find ways of managing this migration so that poor countries do not suffer any further. In the past decade, policy statements, codes of practice and bi-lateral agreements have been developed to:

← **Correct subject.**

- address the push and pull factors leading to migration;
- make recommendations for ensuring that recruitment takes place in an ethically responsible and acceptable manner; and
- ensure that the social and economic costs and benefits of migration are fairly distributed between source countries (their countries of origin) and receiving countries (the countries to which they emigrated).

Make these items into a bullet list.

Correct subject here is EQUINET.

➔ Against this backdrop, EQUINET commissioned the Health Systems Trust (HST) to write this paper, a review of current multi-lateral agreements, codes of practice, bi-lateral agreements, regional agreements, and strategies and position statements that govern the migration of health workers from ESA (East and Southern African) countries. The main purpose of this paper is to provide an overview of the current situation in ESA, so the approach taken here is rather general – these instruments were analysed according to their scope, principles and content, but not according to how they are working in practice. This paper was presented at the annual EQUINET/ HST/ ESCA regional policy and research meeting on health worker migration and retention in ESA, held from March 17 to 19, 2007, in Arusha, Tanzania, where it was proposed that further investigation should be done to find out the how the instruments work in practice.

This literature review was conducted sourcing government documents, current literature and news bulletins. Information was also provided through email communications with key informants. The document search was performed through online search engines. Additional information was gathered through discussion with key informants and stakeholders at the EQUINET/ HST/ ESCA regional policy and research meeting.

The review (or paper) is no longer the subject here and does not perform any actions.

Weak verb makes the findings sound uncertain.

➔ The review suggests that despite a renewed policy and international interest in the ethics of recruitment of HRH from poor countries, current frameworks and codes have clearly been unable to stem the tide of workers

Main sentence (topic sentence) too long.

flowing to the North (with exceptions, particularily seen the UK). Key constraints include the weak or non-existent framework for implementation of the Codes, the voluntary nature of the instruments, a lack of advocacy for subscription to the Codes and a lack of adequate and effective data collection and monitoring systems. Further, codes have no legal status and sanctions for non-compliance are therefore ineffective and unenforceable. There are no formally constituted bodies to provide an oversight and watchdog role for countries that have subscribed to the instruments.

Make these items into a bullet list.

Meanwhile, codes and frameworks may be able to have only limited impact if the push factors driving migration as well as health worker shortages in the North are not simultaneously addressed.

Wordy – cut down. ➔ To ensure the evolution of effective instruments for the ethical recruitment of health workers, countries and international organisations must implement strategies to mitigate the factors pushing health workers out of their country; implement codes of practice that address country or region-specific needs (as seen in the forthcoming Pacific Code of Practice); and build north-south collaborations to move the agenda for ethical recruitment ahead together.

Make these items into a bullet list.

This literature review was conducted by sourcing government documents, current literature and news bulletins. Information was also provided through email communications with key informants. The document search was performed through online search engines. Additional information was gathered through discussion with key informants and stakeholders at the EQUINET/ HST/ ESCA regional policy and research meeting.

New short opening sentence sums up findings neatly.

➔ The findings of the review have proved to be disappointing. Despite renewed international interest in the ethics of recruiting health workers from poor countries, current frameworks and Codes have clearly been unable to stem the tide of workers flowing to the North (with some exceptions, such as the UK). Key constraints include the following:

It's followed by supporting details in the form of a bullet list. These details may also be presented in the form of paragraphs, but you will need to make sure that your writing flows logically from one sentence to the next. Use linking words.

- The framework in which to implement the Codes is weak or non-existent.
- The instruments that are being used are voluntary and not legally binding. They have no legal status and so there are no sanctions for non-compliance.
- No one is advocating that countries should subscribe to the Codes.
- There is a serious lack of adequate and effective data collection and monitoring systems.
- No formally constituted bodies exist to perform the role of watchdog for countries that have subscribed to the instruments.
- Codes and frameworks may have only limited impact if the push factors driving migration, as well as health worker shortages in the North, are not addressed together.

New verb is stronger.

➔ <u>To develop</u> more effective instruments for the ethical recruitment of health workers, the relevant countries and international organisations must:

Bullet list of items.

- implement strategies to mitigate the factors pushing health workers out of their home countries;
- implement Codes of Practice that address country-specific or region-specific needs (as seen in the forthcoming Pacific Code of Practice); and
- build North-South collaborations to move the agenda for ethical recruitment ahead together.

On the following pages are more detailed notes on the final draft and some guidelines. Use them to help you write and edit your own executive summary.

Notes on final draft

Paragraph 1

Your opening paragraph needs to be strong and grab the reader's attention. Here it's based on two **contrasting statements** – (1) Health professionals are benefiting from migration **BUT** (2) Their countries of origin are paying the cost.

Here are some other strong openings that you can use:

- **Posing a question and answering it** (or pointing out **how** the paper will answer it).
  Eg: What is meant by 'food sovereignty'? Food sovereignty includes the following criteria: etc.
- **A strong general statement, followed by more specific information (ie: the main topic of the paper).**
  Eg: *(topic of paper: feeding schemes)* Health and education are the two cornerstones of human capital and form the basis of an individual's economic productivity. Both are valuable instruments in ensuring a healthy economy and creating a literate society. While school feeding interventions fall squarely within the scope of school health initiatives, programmes addressing school health are much wider in scope.
  Eg: *(topic of paper: food aid)* Malawi's greatest developmental challenges over the past 10 years have been its high levels of poverty, recurring food insecurity and widespread malnutrition. All three of these social phenomena are linked because poorer households cannot buy sufficient food for their needs, cannot get a suitable income from their own agricultural production, and suffer from malnutrition as a result. In response to the crisis, levels of global food aid to Malawi have increased and food aid has become a key way to address food insecurity and malnutrition in the country.
- **Contradicting a commonly held assumption.**
  Eg: Many researchers and policy makers believe health equity is about ensuring that everyone gets the same medical care, whether poor or rich. However, this does not take into account the fact that some people have greater health needs than others, so they will need more care.

Paragraph 2

Use of linking word: The first word, 'clearly', shows a logical link with the previous paragraph.

This paragraph gives legislative context for the paper and its main topic.

Supply some background information to provide **context** for your paper. Context may be legislative (as above) political, social, economic or academic. (i.e.: you may contextualise your paper in terms of the world of research and your fellow researchers e.g.: what are main trends in current research? Is there a big academic debate raging?)

Note how the objectives of the instruments are presented as a bullet list – allows for easier reading and helps the information 'stand out' from the text (this is quite important information, so it needs to stand out).

Paragraph 3

Here the commissioning of the paper by EQUINET is mentioned. Credentials of the paper are given by referring to the meeting where it was presented. Scope of the paper is clarified.

You could also mention here:

- why your paper was commissioned (e.g.: to fill a gap in the research); or

- any other information that may help the reader to understand the scope of the paper better.

Like the preceding paragraph, this paragraph provides background information.

Paragraph 4

Research methods.

Paragraph 5

Results. Note use of bullet list.

Paragraph 6

Recommendations. Note use of bullet list.

Language

Can you see how the language is stronger, using 'emotional' words such as 'suffer' and 'disappointing'? These words do not undermine the academic integrity of your writing, but serve to strengthen it. Even though you are scientists, the objects of your study are humans, so don't be afraid to step occasionally out of the confines of 'acceptable' academic style and make your writing a little more human. Make a bold statement or claim here – your readers will be immediately intrigued and they are likely to read further to see how you support your statement or claim.

Content and presentation

You may already have noticed that the only real difference between the two drafts is how they **present the information**. The first draft contains all the necessary information, but the second draft presents it better, making it more accessible and memorable to the reader. Good presentation shows a clear, organised mind and makes you sound like you really know what you're talking about, so it's definitely worth taking a little extra time and trouble when you edit your summary.

3. Introduction

The following example of an Introduction will appeal to the reader because it's short and sweet. In the conventional layout of an EQUINET discussion paper, it's only a page and a half long! But most papers have longer introductions that supply more general background information, for example about political context, the area of research, policy-making, health system design, national history or cultural and economic practices. This background information can be really useful for a reader who comes from outside your country or region. Remember to keep your discussion general, addressing the topic of your paper. You can supply a table or two, or a couple of flow charts or graphs, but don't overwhelm your reader with statistics and findings – rather keep these for your Results section.

This paper is a literature review of existing research into the costs and benefits of health worker migration from East and Southern Africa (ESA) to developed countries, popularly referred to as the 'brain drain'.

Paragraph 1 puts the paper firmly within the context of human resources and tells the reader WHERE the crisis is happening.

1. Introduction

Sub-Saharan Africa is currently experiencing a health crisis in human resources and this crisis is defeating efforts at international, regional and country levels to control and stem the HIV/AIDS epidemic on the African continent (WHO, 2006; World Bank, 2004; USAID, 2003; Global Health Watch, 2006).

For ideas on how to write your opening sentence, refer to the notes supplied at the end of the model example of the Executive Summary.

Paragraph 2 elaborates on the general information provided in Paragraph 1.

This health crisis has the following dimensions:

- Severe shortages of health professionals have seriously eroded the capacity of local health systems to function effectively, efficiently and equitably in the production and delivery of health services to the poorest members of African societies.
- HIV/AIDS has impacted on health workers by increasing their workloads and exposing them to the risk of contracting HIV.
- The migration of health professionals from sub-Sahara Africa to OECD countries, from one African country to another, from the rural to the urban health sector, and from public to private health systems in the same country has caused staff shortages in various areas.
- Chronic under-investment in public sector healthcare systems is another major contributing factor to the health crisis. (Global Health Trust, 2004; Lyons, 2004).

It's always a good idea to provide general info first and the specifics afterwards.

Note how each bullet point is a full sentence.

Note how references are supplied at the end of the sentence.

Instead of using bullet lists, you can present your facts in paragraph form. Be careful not to over-use bullet lists!

This paragraph and the next contain the most important information in the Introduction. Here the author addresses the topic of the paper within the context of existing research and the research 'terrain'. He has given a short overview of existing theoretical models – will be relevant to the Methodology section.

The migration of skilled workers from developing countries to industrial countries is a major development issue in sub-Saharan Africa. But it is simply part of the trend towards the global integration of labour markets at the high-skill end, and the international standardisation of medical education and training inevitably makes the health labour market more easily global in nature and scope than some of the other markets for professionals (Hagopian, Fordyce, Thompson, Johnson and Hart, 2004). Some economic models, which analyse this type labour supply shift within the standard neo-classical free trade framework, conclude that this 'redistribution' of health professionals improves global welfare, in net terms. However, other models, which analyse and assess this shift in labour supply within a developing country's labour market framework, disagree. They argue that this form of migration has very serious consequences for health systems in developing countries. In between these two extremes, there are newer economic models, which analyse and assess skilled migration according to endogenous growth and social network theories. They believe that the loss of health professionals can be beneficial to developing countries.

Note how sentences are active.

This paragraph flows nicely. Note the use of joining words to link sentences logically – they are underlined.

NB!! Here the author explains the underlying tension between the costs and benefits of migration.

For developing countries, the international mobility of health professionals is absolutely necessary if their health systems want to benefit from cutting-edge medical knowledge in developed countries. But this mobility comes at a cost: it has resulted in a medical 'brain drain' for poor countries and 'brain gain' for rich countries.

The author emphasises this most important paragraph by making it short.

In the final paragraph of the Introduction, the author mentions the commission and outlines the

This paper is focused on the migration of health professionals from East and Southern African (ESA) countries to OECD countries. It was commissioned by the Regional Network for Equity in Health in East and Southern Africa (EQUINET) to present a critical review and analysis of the secondary literature on the costs and benefits of the international migration of health professionals. The paper is structured as follows:

structure of the paper.

Can you see how all bullet points are full sentences?

This information can also be presented in paragraph form.

- In Section 2, we provide background information and briefly discuss the theoretical issues addressed in this paper.
- Section 3 is a literature review, outlining the methodology that was employed to conduct the review, as well as the conceptual approach of the paper.
- In Section 4, the findings of the review are presented. Here the factors that influence the costs and benefits of the migration of health professionals, the economic models that are used to describe the impact of skilled migration on developing countries, and the qualitative and quantitative costs and benefits of migration are discussed.
- Section 5 is a general discussion of the findings, in terms of cost-benefit analyses of the migration of health professionals, methodological and conceptual issues regarding costs and benefits, and information gaps and biases.
- In Section 6, we offer ideas for a future programme of CBA research, including a demand-driven database on ESA the migration of health professionals; ideas which will allow ESA countries to benefit as much as possible from the emigration of their skilled health workers, with minimal cost.

VERBS:

The author is careful not to write about his paper, or any section of it, as if it were a person performing an action. Some useful ways of getting round this problem are underlined on the left. For variety, he has used 'we' in an active sentence, the verb 'to be' and passive voice.

4. Methodology

We have supplied two different methodology sections here – the first is from a PRA paper, which outlines the PRA methodology that the author followed in her research, and the second is from a literature review. The authors have taken different approaches, but the steps that they took are still always given in chronological order.

The two main types of research methodology are introduced here.

2. Methodology

The research methodology that we used was a mix of qualitative and quantitative methods.

The author moves from the general (in this paragraph) to the specific (in the following paragraphs).

In the following paragraphs, the methodology is presented step by step, i.e.: in the order in which each step was taken.

A brief questionnaire was given to all (77) third-year nursing students in the beginning of the study to assess their baseline attitudes towards community knowledge on health needs. The questionnaire reviewed the perceptions of nurses about whether or not communities were able to identify their own health needs and able to act on them. The same questionnaire was given again to the students after the study to see whether their attitudes had changed when compared with this baseline.

Can you see how this paragraph consists of two steps, with the middle sentence providing supporting info?

The second part of the study is elaborated here, also step by step.

Plain, simple English works very effectively here.

Eight third-year nursing students from UNAM were randomly selected, and informed consent was obtained to use them in the study. After the meeting with the community leaders, a meeting was also held with the selected students to inform them on the project and its educational role, and to secure their agreement. This was followed by a transect walk and mapping with the students, accompanied by a section leader.

At the end of the PRA intervention, the students were given the same attitude checklist provided in the beginning to assess any differences in their perceptions regarding community knowledge. EQUINET (TARSC, CHESSORE and IFAKARA) facilitators provided backup support on the methods and on the draft reports. The notes were taken by the PRA team (community secretariat, students and facilitator). The full programme was implemented between 23 March 2006 and 31 May 2006.

Note how strictly the author follows the chronological order in which she carried out each step of the process.

Supporting information is also provided.

Remember to include the dates and the names of organisations that were involved – i.e.: the major players.

In the last paragraph, the author lists the final step of her methodology and provides further acknowledge-ments.

Results were synthesised and a report was compiled, providing the outcomes and mentioning possible ways forward from the lessons learned. Both groups participated in this step to ensure that they took ownership of the study. This final report was compiled by University of Namibia (Kathe Hofnie-Hoëbes) with technical edit from TARSC/EQUINET (Rene Loewenson).

The author mentions the purpose of the study (finding ways forward) and motivation for the methodology (to ensure ownership).

The following Methodology section was adapted from a literature review about health worker incentives that had a slightly different structure to conventional EQUINET papers. Before the Methodology section, the author provided the conceptual framework for his paper, in which he firmly positioned the topic (health worker incentives) within the contexts of government policy, the health care system, and policy and system design. These contexts were usefully illustrated in a flow chart. He also wrote a short section on the objectives of his paper. You might want to do something similar in your own paper. Remember, you can alter the structure of your paper and add in different sections if you feel it will benefit your paper, or if you find that your paper doesn't fit into the conventional structure.

Paragraph 1 states the first step of the methodology – the initial search for information on the internet.

The main research area is mentioned – human resources for health (HRH).

2. Methodology

In this review, we collated published evidence on the use of incentives in all sixteen countries using relevant search terms. Information was accessed from internet search engines and libraries (google, yahoo, Medline/pubmed and EBCOhost). Websites that are dedicated to human resources in the health sector (HRH) were used, such as the WHO HRH database and the websites of PRH*plus*, the Global Health Alliance, GTZ, MSH, Medline, USAID, the Capacity Project, UNDP, IMF/WB, ILO, IOM, EQUINET and the Health Systems Trust, as well as those of governments and ministries of health in countries from East And Southern Africa. Other HRH information was obtained from English language newspapers in countries that allow free access to archives.

Note how the author makes sure that 'we' and not 'this review' does the action (collating) in the sentence.

The major sources or players are mentioned here.

Paragraph 2 describes how further information was obtained.

Can you see how it logically and chronologicall y follows on from Paragraph 1?

All documents that were obtained during the review process were used to broaden the search for primary information sources. Initially, additional information was sought from the databases of SADC and ECSA secretariats, and from human resources officials at the ministries of health in various countries, but this proved unsuccessful and no documents were forthcoming. In the searches, in general, we looked for documents referring to HRH that also addressed financial incentives, non-financial incentives, motivation, performance, HIV and AIDS and health workers, and health sector reforms. The final version of this paper incorporated input from country representatives at the *EQUINET-*

VERBS:

Note how the author uses a mix of active and passive voice – see underlined verbs.

ECSA Regional Meeting on Health Worker Retention and Migration, Arusha, 17–19 March 2007. The meeting provided an opportunity to validate and update evidence on the use of non-financial incentives in some of the countries under review.

The author has been careful to list each action in the correct chronological order.

Note the use of chronological linking words (underlined in the text).

First, retrieved documents were scrutinised for relevance and, in some cases, were used to 'snowball' the search by using references therein to search for primary sources of information. Documents were then carefully examined for evidence relevant to this paper. The findings were put into context, according to the specific health system characteristics for each country. Finally, the information was consolidated and summarised to compare what is available in the different countries. A number of summaries of 'best practice' strategies used in some of the countries are presented in the form of boxes in section 3 of this paper.

The review was biased in favour of published literature accessible through internet searches, and only English language documents were looked at. It is possible that documents in other languages (such as French or Portuguese) were left out, and so the emerging picture may not be fully representative. Most documents reviewed are from the past 10 years, which may misrepresent the situation in countries that have had non-financial incentives in place much longer.

It's an excellent idea to mention the shortcomings of your methodology, if possible, to help the reader develop a more critical viewpoint.

Here's another example of a Methodology section. We don't have enough space to reproduce the whole section, so we have provided only the headings for you to see how the author structured her Methodology section.

2. Methodology

2.1 Study area and research approach

2.2 Sample size and sampling techniques

2.3 Selecting the respondents

2.4 Entering, managing and analysing the data

In the following extract from the same paper, the author mentions the objectives of her paper. She placed this section directly before the Methodology section. We strongly recommend that you provide this kind of information to your reader!

Note how the author moves from the general to the specific by first giving the overall objective and then breaking it down into more specific objectives.

1.2 Objectives of this study

The overall objective of this study is to investigate the private health insurance market in Uganda and gather the opinions of various stakeholders on social health insurance (SHI) to collect information that is relevant for guiding SHI policy refinement. Specifically, the objectives of this study are to:

- establish the number and type of private health insurance organisation in the market;
- examine how the private health insurance market is regulated in Uganda;
- explore the amount of money and/or proportion (%) of salaries that employees/employers are currently paying as insurance premiums to private health insurance schemes;
- explore the benefit packages that are being provided under private health insurance schemes.
- document the opinions of both employees and employers on the introduction of SHI;
- identify key issues and/or obstacles relating to private health insurance that may impede the successful implementation of SHI in Uganda; and
- provide recommendations to the SHI Task Force on the implementation of SHI in Uganda.

Here she describes how her research will be used to inform government policy-makers and other stakeholders.

Results from this study will be of particular importance to the Ugandan MoH and specifically the SHI Task Force, which is currently tackling the evaluation of other fundamental issues relating to the introduction of SHI. Specifically, results from this study will inform the SHI/NHI Task Force in Uganda about:

- the number of employees who are currently covered by health insurance or who have private arrangements for pre-payment medical schemes, which will inform the debate around whether or not health insurance should be made mandatory; and
- the different types of stakeholders who are likely to be affected by the implementation of SHI and their opinions, which will inform the debate about the roles of different stakeholders in SHI.

In the final paragraph, she discusses the gap in research that this paper has filled.

Statistical information, especially about number of employers who are contributing to employees' health insurance, is urgently needed by the Task Force. For instance, the extent to which employers are currently contributing to their employees' health expenditures gives an indication of their interest in having healthy employees, and is thus indicative of the fact that they might be willing to contribute to their employees' social health insurance. Also, knowledge about the benefit packages under private health insurance schemes would provide a useful guide for determining what could be included in the health benefit packages under SHI. Lastly, the opinions and perceptions of the key players in the health insurance market are of critical importance to policy makers. Specifically, this information will be helpful in determining the different areas that need to be addressed in the education, information and communication campaigns prior to the implementation of SHI.

Equity in health implies addressing differences in health status that are unnecessary, avoidable and unfair. In southern Africa, these typically relate to disparities across racial groups, rural/urban status, socio-economic status, gender, age and geographical region. EQUINET is primarily concerned with equity motivated interventions that seek to allocate resources preferentially to those with the worst health status (vertical equity). EQUINET seeks to understand and influence the redistribution of social and economic resources for equity oriented interventions, EQUINET also seeks to understand and inform the power and ability people (and social groups) have to make choices over health inputs and their capacity to use these choices towards health.

EQUINET implements work in a number of areas identified as central to health equity in the region:

- Public health impacts of macroeconomic and trade policies
- Poverty, deprivation and health equity and household resources for health
- Health rights as a driving force for health equity
- Health financing and integration of deprivation into health resource allocation
- Public-private mix and subsidies in health systems
- Distribution and migration of health personnel
- Equity oriented health systems responses to HIV/AIDS and treatment access
- Governance and participation in health systems
- Monitoring health equity and supporting evidence led policy

For further information on EQUINET please contact the secretariat:
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